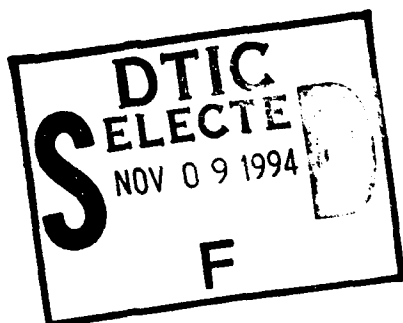
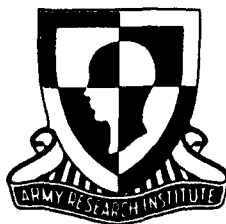


**AD-A286 010**



**Research Product 95-03**

# **Combat Leaders' Guide: 1994 Leader Handbook**

**94-34682**



94 11 8 02 2

**October 1994**

**Infantry Forces Research Unit  
Training Systems Research Division**

**U.S. Army Research Institute for the Behavioral and Social Sciences**

Approved for public release; distribution is unlimited.

DTIC QUALITY INSPECTED 1

# U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

**A Field Operating Agency Under the Jurisdiction  
of the Deputy Chief of Staff for Personnel**

**EDGAR M. JOHNSON**  
Director

---

Technical review by

Kevin Joseph Dougherty  
LT Mark A. Hale

Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist:	Avail and/or Special
A-1	

## NOTICES

**FINAL DISPOSITION:** This Research Product may be destroyed when it is no longer needed.  
Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

**NOTE:** This Research Product is not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204 Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 1994, October	3. REPORT TYPE AND DATES COVERED Final Jan 94 - Jul 94		
4. TITLE AND SUBTITLE Combat Leaders' Guide: 1994 Leader Handbook		5. FUNDING NUMBERS 63007A 794 2123 H01		
6. AUTHOR(S) Salter, Margaret S.				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences ATTN: PERI-IJ 5001 Eisenhower Avenue Alexandria, VA 22333-5600		8. PERFORMING ORGANIZATION REPORT NUMBER  ARI Research Product 95-03		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Avenue Alexandria, VA 22333-5600		10. SPONSORING / MONITORING AGENCY REPORT NUMBER  --		
11. SUPPLEMENTARY NOTES  --				
12a. DISTRIBUTION / AVAILABILITY STATEMENT  Approved for public release; distribution is unlimited.		12b. DISTRIBUTION CODE  --		
13. ABSTRACT (Maximum 200 words)  The Combat Leaders' Guide (CLG) is a job performance aid for leaders to use as a memory jogger during realistic combat training like that at the Combat Training Centers or in continuous operations environments. The CLG is a pocket-sized, quick reference system to be used by trained soldiers at company, platoon, or squad level. The CLG helps to overcome the potential effects of performance decay over time and during periods of high stress and fatigue. It supports unit readiness by providing a leader with doctrinal, tactical, and technical materials in a quick reference format.				
14. SUBJECT TERMS Combat Leaders' Guide (CLG) Leader guide Job aids		15. NUMBER OF PAGES 241		
		16. PRICE CODE --		
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited	

**Research Product 95-03**

**Combat Leaders' Guide:  
1994 Leader Handbook**

**Margaret S. Salter**  
U.S. Army Research Institute

**Infantry Forces Research Unit  
Thomas J. Thompson, Acting Chief**

**Training Systems Research Division  
Jack H. Hiller, Director**

U.S. Army Research Institute for the Behavioral and Social Sciences  
5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600

Office, Deputy Chief of Staff for Personnel  
Department of the Army

**October 1994**

---

**Army Project Number  
2Q263007A794**

**Education and Training**

Approved for public release; distribution is unlimited.

## **FOREWORD**

---

The Infantry Forces Research Unit of the U.S. Army Research Institute for the Behavioral and Social Sciences Training Systems Research Division conducts research and development on training methods and technologies to maximize combat effectiveness across the conflict spectrum. Much of the research has resulted in usable products for soldiers. The Combat Leaders' Guide: 1994 Leader Handbook (CLG) is the fourth iteration of a prototype pocket-sized job performance aid for use by trained soldiers. Earlier editions of the CLG have been distributed to over 15,000 soldiers throughout the world and are being used by both Active and Reserve Component tactical units.

This updated edition of the CLG was developed with the assistance and support of the Army National Guard (ARNG) Special Assistant to the Commanding General, U.S. Army Infantry Center. The Infantry Center ARNG office will continue to distribute copies of the CLG to personnel and units that request it. Recipients to date include personnel in the National Guard's Officer Candidate Schools, Reserve Officer Training Course programs, and both National Guard and FORSCOM units, as well as trainers at TRADOC schools and professional development academies.

The CLG has shown its usefulness in supporting unit readiness by providing small unit leaders with doctrinal, tactical, and technical materials in a quick reference format. The CLG offers potential for increased operational capability by ensuring maintenance of leader readiness and unit standardization.

EDGAR M. JOHNSON  
Director

## **ACKNOWLEDGMENTS**

---

Special thanks are offered to several of the many people who contributed to this version of the Combat Leaders' Guide: 1994 Leader Handbook:

COL Howard L. Willis, Jr., ARNG, provided enthusiastic support and resources throughout the project. His concern for all soldiers, in both the Active and Reserve Components, has made the Combat Leaders' Guide (CLG) possible. We could not have done this without him--or without his second in command, 1LT Mark Hale, who ended up doing a lot of the hard work.

1LT Steve Cronin, first, and 1LT Dave Streit, at length, were a tremendous help, and CPT Kevin Dougherty once again provided a careful and thoughtful review.

Thanks also to the soldiers who have liked the CLG well enough to keep asking for more; the book is for them.

Finally, without the efforts of Carol Bryan, who met the challenges of balky software and an office fire, the CLG would not be here.

# COMBAT LEADERS' GUIDE: 1994 LEADER HANDBOOK

## CONTENTS

---

	Page
INTRODUCTION . . . . .	1
Background . . . . .	1
Description . . . . .	1
Target Audience . . . . .	1
Distribution . . . . .	1
COMBAT LEADERS' GUIDE: 1994 LEADER HANDBOOK . . . . .	2
REFERENCES . . . . .	5
APPENDIX A. COMBAT LEADERS' GUIDE: 1994 LEADER HANDBOOK . . . . .	A-1

# COMBAT LEADERS' GUIDE: 1994 LEADER HANDBOOK

## Introduction

### Background

The Combat Leaders' Guide (CLG) is a standardized job performance aid for leaders to use as a memory jogger during realistic combat training such as is encountered at the Combat Training Centers or in continuous operations environments. The CLG is not a training aid, nor is it designed to replace standard training manuals; it is a quick reference system to be used by trained soldiers at company, platoon or squad level. The CLG was designed to overcome the potential effects of performance decay over time and during periods of high stress and fatigue.

### Description

The CLG is a pocket-sized handbook comprised of step-wise summaries of tasks drawn from Soldiers' Manuals and multiple other training documents. The pages are generally presented in checklist form in easily read large type. The CLG is printed on latex-coated water and tear-resistant paper and is fastened with rings for insertion or deletion of material. The CLG can be personalized to individual and unit needs; it is usable during conditions of limited visibility and inclement weather.

The iterative process of CLG task selection and development is described in two earlier reports, Evaluation of a Job Aid System for Combat Leaders: Rifle Platoon and Squad (Evensen, Winn, & Salter, 1988) and Authoring Guide: A Job Aid to Design and Produce a Combat Leaders' Guide (Winn & Evensen, 1988).

### Test Audience

CLGs have been distributed worldwide to personnel in the U.S. Navy and U.S. Marine Corps as well as to the primary users, Army personnel in both the Active and Reserve Components. Although the handbook was intended to be used at company level and below, user feedback indicates that since it is a generic guide, it is usable and useful for personnel at differing levels of experience and with varying job descriptions. Individual and unit requests from units throughout the United States, Europe and Korea, from TRADOC Schools and Reserve and National Guard Components indicate that the CLG is being used to support classroom instruction, field training exercises and unit evaluations, Combat Training Center rotations, professional development schools, and by, for example, Medics and Military Police as well as by Combat Arms personnel.



## Distribution

The original CLG (Combat Leaders' Guide: Rifle Platoon and Squad, Winn, Evensen & Salter, 1987a) was developed and printed by the Army Research Institute (ARI) at Fort Benning as a test item in 1986. A total of 1300 copies were distributed to obtain soldier feedback on the idea and possible contents of a CLG. Based on their comments, a second, revised edition was printed in 1987 and reprinted in 1990 (Combat Leaders' Guide: Platoon Leaders, Platoon Sergeants and Squad Leaders, Winn, et al., 1987b). Five thousand copies were distributed. In late 1990, as requests from soldiers deploying to Operation Desert Shield/Desert Storm depleted the supply of CLGs, ARI developed another version, based on feedback regarding its actual use in combat and near combat conditions. This version, Combat Leaders' Guide: Leader Handbook (Salter, 1993) had 4500 copies printed.

In view of the continuing demand for the product, the 1992 edition of the CLG was reprinted by the Special Assistant to the Commanding General, Army National Guard (ARNG), Fort Benning, for nationwide distribution to ARNG infantry battalions and the ARNG Officer Candidate School programs. Nearly 20,000 CLGs were printed for these purposes; most of these have been distributed.

The CLG has been developed as a prototype, and is not an official Government publication. As a job performance aid, it neither fits into the limitations of the doctrinal literature program nor does it fit the criteria for a Graphic Training Aid. Additionally, the cost of printing the CLG is relatively high because of the weather-resistant paper. Although local reproduction is encouraged, few copies other than the ARI-prepared series have been produced.

### Combat Leaders' Guide: 1994 Leader Handbook

Because of the continuing requests both to ARI and the Fort Benning ARNG office, the CLG has recently been updated, and is being distributed to personnel in both Active and Reserve Components. This most recent version, Combat Leaders' Guide: 1994 Leader Handbook, is found at Appendix A.

The content of the 1994 book is very similar to that of previous editions, with a few notable changes. In view of an increasing focus on operations other than war, a section on peacekeeping and rules of engagement has been added. Similarly, the focus on risk management has brought a section which includes a risk assessment matrix. Other chapters have been lengthened or shortened; a few errors or terminology changes have been corrected. Some sections (Plan, Move, Attack, Defend, Withdraw) have undergone very little change from previous versions of the CLG. Others, like Patrol, NBC, and Fire Support, have been changed to reflect changes in techniques and procedures.

Specific changes were made after a page by page subject matter expert look at the old material. A few sections were eliminated or revised, and a limited amount of updating was effected. Several different personnel contributed to the effort, including those from the ARNG office, the U.S. Army Infantry School, and the 29th Infantry Regiment. Wherever appropriate (e.g., in the chemical section), subject matter experts reviewed the new CLG for content, presentation, and currency.

The Combat Leaders' Guide: 1994 Leader Handbook will be distributed in large measure by the ARNG. One of the most sought after documents available to soldiers, the CLG serves to provide a leader with current doctrinal, tactical and technical materials in a quick reference format that will help to insure force readiness.

## References

- Evensen, E. B., Winn, R. B., & Salter, M. S. (1987). Evaluation of a job aid system for combat leaders: Rifle platoon and squad (ARI Research Report 1465). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A193 518)
- Salter, M. S. (1993). Combat leaders' guide: Leader handbook (ARI Research Product 93-01). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A263 416)
- Winn, R. B., & Evensen, E. B. (1988). Authoring guide: A job aid to design and produce a combat leaders' guide (ARI Research Product 88-14). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A198 873)
- Winn, R. B., Evensen, E. B., & Salter, M. S. (1987a). Combat leaders' guide: Platoon leaders, platoon sergeants, and squad leaders (ARI Research Product 87-33). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A192 049)
- Winn, R. B., Evensen, E. B., & Salter, M. S. (1987b). Combat leaders' guide: Rifle platoon and squad (ARI Research Product 87-23). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A190 605)

COMBAT LEADERS'  
GUIDE



LEADER HANDBOOK



ARMY RESEARCH INSTITUTE  
INFANTRY FORCES RESEARCH UNIT  
1994

RISK ASSESSMENT MATRIX		PROBABILITY				
		FREQUENT	LIKELY	OCCASIONAL	REMOTE	UNLIKELY
		A	B	C	D	E
E	CATASTROPHIC	EXTREMELY HIGH				
F						
F	CRITICAL			HIGH		
E	MARGINAL			MEDIUM		
C				LOW		
T	NEGLECTIBLE					

## **INTRODUCTION**

- **The Combat Leaders' Guide (CLG) is a job aid designed to help you in your COMBAT MISSION.**
- **Use it as a memory jogger. It includes information and checklists helpful in the field.**

### **USING THE CLG:**

- **Laminate pages to be written on.**
- **Protect the CLG from the weather/use a plastic bag.**
- **Add, remove or reorganize pages based on your mission.**
- **Insert job aids or SOPs in the plastic sleeves.**

<b>TABLE OF CONTENTS</b>	
<b>BASIC COMBAT RULES</b>	<b>PAGE</b>
Leading in combat	1-1
Basic rules of combat	1-2
<b>PLAN</b>	
Troop leading procedures	2-1
Warning order	2-2
Factors of METT-T	2-3
Estimate of the situation	2-8
Operation order	2-15
Fragmentary order	2-19
Time schedule	2-20
Light and weather data	2-21
<b>MOVE</b>	
Actions before march	3-1
Duties of quartering party	3-2
March orders	3-3
Actions during march	3-4
Actions at halts	3-5
Actions at assembly area	3-6

<b>TABLE OF CONTENTS</b>	
<b>ATTACK</b>	<b>PAGE</b>
Preparation for attack	4-1
Consolidation	4-3
Reorganization	4-4
<b>DEFEND</b>	
Defensive priority of work	5-1
Defense planning outline	5-3
Coordination checklist	5-5
Establish observation post	5-7
Fighting position guidelines	5-8
Building fighting position	5-9
Range card preparation	5-11
Range card (blank)	5-13
Range card (sample)	5-14
Sector sketch preparation	5-15
Sector sketch (sample)	5-17
Occupation of a battle position	5-18



<b>TABLE OF CONTENTS</b>	
<b>DEFEND</b>	<b>PAGE</b>
Fighting from a battle position	5-19
Fire distribution and control	5-20
Camouflage	5-21
Physical security	5-22
Defending during limited visibility	5-24
<b>DELAY</b>	
Fundamentals of delay	6-1
<b>WITHDRAW</b>	
Disengagement planning	7-1
Disengagement actions	7-2
Passage of lines coordination	7-3
Withdrawal under enemy pressure	7-4
Withdrawal not under enemy pressure	7-7
Relief in place	7-11

<b>TABLE OF CONTENTS</b>	
<b>PATROL/RECON</b>	<b>PAGE</b>
Patrol planning steps	8-1
Patrol coordination	8-2
Complete the plan	8-4
Departure from friendly lines	8-6
Rally points	8-7
Patrol report (debriefed)	8-8
Selection of a patrol base	8-9
Occupation of a patrol base	8-10
Patrol base activities	8-11
Principles of a raid	8-12
Conduct a raid	8-13
Principles of an ambush	8-15
Organize an ambush	8-17
Conduct an ambush	8-19
Plan a recon mission	8-21
Recon zone	8-23
Recon area	8-25

<b>TABLE OF CONTENTS</b>	
<b>NBC</b>	<b>PAGE</b>
NBC-1 report	9-1
NBC-4 report	9-2
NBC-prior to attack	9-3
NBC-during attack	9-4
NBC-after attack	9-6
Unmasking with chemical agent detector kit	9-8
Unmask without chemical agent detector kit	9-9
MOPP levels	9-10
Detailed troop decon	9-11
MOPP gear exchange	9-12
Mark contaminated area: radiological/bio/chem	9-13
Prepare for NBC attack/protect against electromagnetic pluse	9-15
Supervise radiation monitoring	9-16
Using a dosimeter	9-17
Collect/report total radiation dose	9-18

<b>TABLE OF CONTENTS</b>	
<b>FIRE SUPPORT</b>	<b>PAGE</b>
Principles of fire support planning/coordination	10-1
Call for fire	10-2
Call for fire card	10-4
Target list worksheet	10-5
Mortar/artillery capabilities	10-6
Attack helicopter capabilities	10-7
Artillery counterfire	10-8
<b>SUPPLIES/LOGISTICS</b>	
Supplies and logistical services	11-1
Precombat checks	11-2
Classes of supply	11-4
<b>COMMO</b>	
Electro counter-counter measures	12-1
Radio troubleshooting	12-2
Splicing field wire	12-3
Installing commo lines	12-5
Crossing objects with commo lines	12-6

<b>TABLE OF CONTENTS</b>	
<b>COMMO</b>	<b>PAGE</b>
Messenger briefing	12-7
<b>MINES/DEMO</b>	
Install/remove hasty protective minefield	13-1
DA Form 1355-1-R sample	13-3
DA Form 1355-1-R (blank)	13-4
Breaching and clearing minefields	13-5
Nonelectric firing system	13-6
Nonelectric/electric priming of demo block	13-8
Clear nonelectric/electric misfires	13-10
Electric firing system	13-11
<b>PEACEKEEPING</b>	
Rules of engagement (ROE)	14-1
Area assessment checklist	14-2
Checkpoint/roadblock PIR checklist	14-4

<b>TABLE OF CONTENTS</b>	
<b>AIR ASSAULT OPERATIONS</b>	<b>PAGE</b>
Aircraft troop commander briefing	15-1
Safety briefing checklist	15-2
Reverse planning sequence	15-3
Ground tactical plan considerations	15-4
Landing plan considerations	15-5
Landing zone selection criteria	15-6
Air assault PZ/LZ planning considerations	15-7
Extraction loading plan requirements	15-8
Leader duties in air assault operations	15-9
Chalk leader duties/platoon air assault	15-10
Set up a helicopter landing site	15-11
Night marking of PZs/LZs	15-13

<b>TABLE OF CONTENTS</b>	
<b>MEDICAL</b>	<b>PAGE</b>
Evaluate a casualty/first aid	16-1
Shock - symptoms/first aid	16-2
Heat exhaustion/heat cramps	16-3
Heat stroke/sun stroke	16-4
Frostbite	16-5
Hypothermia/cold weather injury	16-6
Request army air MEDEVAC	16-7
Continuous operations planning	16-8
Heat precautions	16-10
<b>VEHICLE RECOVERY</b>	
Recovery procedure checklist	17-1
Recovery fundamentals	17-2
<b>AIR DEFENSE</b>	
Engaging aircraft	18-1
Weapons control status	18-1
Air defense warning	18-2
Local air defense warning	18-2
Engagement/lead distances	18-3
Passive air defense	18-4

<b>TABLE OF CONTENTS</b>	
<b>COMBAT IN CITIES</b>	
Built-up area fighting principles	19-1
Attack and clear a building	19-2
Organize building defense	19-3
<b>LEGAL ASPECTS OF WAR</b>	
Principles of the Law of War	20-1
Rules of engagement (ROE) and the law of war	20-3
Handling of enemy prisoners of war (EPWs)	20-4
<b>MISCELLANEOUS</b>	
Personnel records	21-1
Spot report/SALUTE	21-4
Find unknown range (WORM)	21-5
Weapon capabilities	21-6
Target acquisition/signature	21-7
Conversion table: US/metric	21-8



<b>TABLE OF CONTENTS</b>	
<b>MISCELLANEOUS</b>	<b>PAGE</b>
Converting azimuths	21-9
Reduce risk of fratricide	21-10
Risk assessment process	21-12
Risk assessment worksheet	21-13
<b>ACRONYMS</b>	
Acronyms	22-1

<b>LEADING IN COMBAT</b>	
<b>1</b>	<b>Set the example</b>
<b>2</b>	<b>Lead from as far forward as you can</b>
<b>3</b>	<b>Lead from a position where your soldiers can see you/your vehicle</b>
<b>4</b>	<b>Lead from where you can control all elements physically or by radio</b>
<b>5</b>	<b>Move to influence the action</b>
<b>6</b>	<b>Make sound, quick decisions</b>
<b>7</b>	<b>Forcefully execute decisions</b>
<b>8</b>	<b>Use reverse planning sequence</b>
<b>Notes:</b>	

**1**

**1-1**

**1**

BASIC RULES OF COMBAT	
TYPE	RULE
1	<b>SECURE</b> Use cover and concealment Establish local security/recon
2	<b>MOVE</b> Establish moving element/move to position of advantage Gain and maintain initiative
3	<b>SHOOT</b> Establish base of fire/mutual support Kill/suppress enemy
4	<b>COMMUNICATE</b> Inform everyone/tell soldiers what you expect
5	<b>SUSTAIN</b> Keep fight going/care for soldiers

1

1-2

1

TROOP LEADING PROCEDURES		
STEP	ACTION	✓
1	Receive mission	
2	Issue warning order	
3	Make tentative plan	
4	Start needed movement	
5	Recon	
6	Complete plan	
7	Issue orders	
8	Supervise and refine	
Notes:		

2

2-1

2

WARNING ORDER	
1. Situation	_____
2. Mission	_____ _____
3. General Instructions	
a. Special teams/task organization	_____ _____
b. Common uniform/equipment	_____
c. Special weapons, ammo, equipment	_____ _____
d. Tentative time schedule	_____ _____
4. Special Instructions	_____ _____ _____ _____

2

2-2

2

FACTORS OF METT-T		
(FACTORS APPLY TO FR & EN)		
ITEM	FACTORS	✓
1	MISSION	
	Intent one & two levels up	
	Specified tasks	
	Implied tasks	
	Mission essential tasks	
	Limitations	
	Restated mission	

2

2-3

2

FACTORS OF METT-T		
ITEM	FACTORS	✓
2	ENEMY	
	Disposition	
	Composition	
	Strength	
	Activities	
	Weaknesses	
	Possible COAs	
	Probable COAs	

2

2-4

2

FACTORS OF METT-T		
ITEM	FACTORS	✓
3	TROOPS AVAILABLE	
	Key leaders	
	Disposition	
	Composition	
	Strength (personnel/ materiel)	
	Activities	
	Weaknesses	
	Morale	
	Maintenance level	
	Combat service support	

2

2-5

2



FACTORS OF METT-T		
(FACTORS APPLY TO FR & EN)		
ITEM	FACTOR	✓
4	TERRAIN (OCOKA)	
	Observation/Fields of fire	
	Cover & concealment	
	Obstacles	
	Key terrain	
	Avenues of approach	

2

2-6

2

FACTORS OF METT-T		
ITEM	FACTORS	✓
5	TIME	
	Planning & preparation of combat orders	
	Inspections & rehearsals	
	Movement	
	Line of departure	
	Start, critical, release points	
	Use 1/3 - 2/3 rule	

2

2-7

2

<b>ESTIMATE OF THE SITUATION</b>		
<b>1. Detailed Mission analysis</b>		
<b>a. Mission/intent of commander 2 levels up</b>		
<b>b. Mission/intent of immediate commander</b>		
<b>c. Tasks &amp; purpose/specified &amp; implied</b>		
<b>d. Mission essential tasks</b>		
<b>e. Constraints &amp; limitations</b>		
<b>f. Restated mission</b>		
<b>g. Tentative time schedule</b>		

**2**

**2-8**

**2**

<b>ESTIMATE OF THE SITUATION</b>		
<b>2. Estimate situation/develop course of action</b>		
<b>a. Terrain &amp; weather - effects on personnel &amp; equipment</b>		
<b>OCOKA</b>		
<b>Visibility/trafficability mobility/survivability</b>		
<b>b. Enemy situation &amp; COA</b>		
<b>Intentions</b>		
<b>Capabilities</b>		
<b>Disposition</b>		
<b>Composition</b>		
<b>Strengths</b>		
<b>Weaknesses</b>		
<b>Weapons/units</b>		
<b>Most probable COA based on doctrine/situation</b>		

**2**

**2-9**

**2**

<b>ESTIMATE OF THE SITUATION</b>	
<b>c. Friendly situation</b>	
<b>Troops available</b>	
<b>Equipment available</b>	
<b>Time available</b>	
<b>d. Friendly COA (repeat for each COA)</b>	
<b>Decisive point &amp; time to focus combat power</b>	
<b>Results that must be achieved</b>	
<b>Purposes &amp; tasks of main &amp; supporting efforts</b>	
<b>Task organization to accomplish mission</b>	
<b>Control measures</b>	
<b>e. Prepare a COA statement &amp; sketch</b>	

**2**

**2-10**

**2**

<b>ESTIMATE OF THE SITUATION</b>	
<b>3. Analyze COAs</b>	
<b>Mission specific factors</b>	
<b>mission essential tasks</b>	
<b>commander's intent</b>	
<b>relative effectiveness</b>	
<b>logistic support</b>	
<b>General Factors</b>	
<b>characteristics of offense and defense</b>	
<b>METT-T</b>	
<b>weapon utilization</b>	

**2**

**2-11**

**2**

ESTIMATE OF THE SITUATION			
4. Compare Course of Action considering how well the COA:	1	2	3
Supports scheme of maneuver			
Helps command & control			
Concentrates combat power at decisive point			
Forces provide mutual support			
Responds to maneuver elements & reserve			

2

2-12

2

ESTIMATE OF THE SITUATION			
4. Compare Course of Action considering how well the COA:	1	2	3
Exploits enemy weakness			
Accounts for weather			
Uses best avenue of approach			
Provides enough maneuver space			
Maximizes observation & ranges of weapon systems			
Provides cover & concealment			

2

2-13

2



<b>ESTIMATE OF THE SITUATION</b>			
<b>4. Compare Course of Action considering how well the COA:</b>	<b>1</b>	<b>2</b>	<b>3</b>
Considers obstacles			
Controls key terrain			
Helps speed of execution			
Does not require adjustment of unit positions			
Uses all HQs			
Requires normal CSS			
<b>5. Decision</b>			

**2**

**2-14**

**2**

## OPERATION ORDER

Task organization: \_\_\_\_\_

1. Situation

a. Enemy forces: \_\_\_\_\_

b. Friendly forces: \_\_\_\_\_

Mission/concept higher \_\_\_\_\_

Location & actions of units on  
left, right, front, rear \_\_\_\_\_

Units providing fire support \_\_\_\_\_

2

2-15

2

OPERATION ORDER	
2. Mission	
3. Execution	
Intent	
a. Concept of the operation	
(1) Maneuver	

2

2-16

2

**OPERATION ORDER**

**(2) Fires** \_\_\_\_\_

**(3) Engineering, ADA, etc.** \_\_\_\_\_

**b. Tasks to maneuver units** \_\_\_\_\_

**c. Tasks to combat support units** \_\_\_\_\_

**d. Coordinating instructions** \_\_\_\_\_

**2**

**2-17**

**2**

OPERATION ORDER	
4. Service Support:	_____
	_____
	_____
	_____
	_____
	_____
	_____
5. Command and Signal	
a. Command:	_____
	_____
	_____
	_____
b. Signal:	_____
	_____
	_____
	_____

2

2-18

2

FRAGMENTARY ORDER	
(FRAGO provides changes to an existing order. Address only elements that have changed)	
Reference	_____
Task organization	_____
1. Situation	_____
2. Mission	_____
3. Execution	_____
4. Service Support	_____
5. Command/Signal	_____

2

2-19

2

[illegible]

LIGHT AND WEATHER DATA		
ITEM	FIRST DAY	NEXT DAY
BMNT/EENT		
Sun Rise		
Sun Set		
Moon Rise		
% Illum		
Moon Set		
NVG Hours		
Temp High/Lo		
Winds		
Precip		
Effects of light & weather:		

2

2-21

2



<b>ACTIONS BEFORE MARCH</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Give warning order</b>	
<b>2</b>	<b>Select quartering party NCO and send to team CP</b>	
<b>3</b>	<b>Recon route from AA to SP</b>	
<b>4</b>	<b>Record time from AA to SP</b>	
<b>5</b>	<b>Adjust departing time from AA to arrive at SP on time</b>	
<b>6</b>	<b>Have crews perform precombat checks</b>	
<b>7</b>	<b>Have vehicle commanders report their status</b>	
<b>8</b>	<b>Give march order to vehicle commanders</b>	

**3**

**3-1**

**3**

<b>DUTIES OF QUARTERING PARTY</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Inspect intended assembly area for enemy NBC/mines</b>	
<b>2</b>	<b>Secure platoon area until platoon arrives</b>	
<b>3</b>	<b>Establish and maintain commo</b>	
<b>4</b>	<b>Clear or mark obstacles</b>	
<b>5</b>	<b>Select general location of vehicle positions; mark places</b>	
<b>6</b>	<b>Select covered/concealed route to RP; meet platoon</b>	
<b>7</b>	<b>Guide platoon into area</b>	
<b>8</b>	<b>Brief platoon leader</b>	

**3**

**3-2**

**3**

MARCH ORDERS	
1. Destination (map)	_____
2. Route of march (map)	_____
3. Location of SP, critical points, RP (map)	_____
4. SP time	_____
5. March interval (meters)	_____
6. March speed (mph/kph)	_____
7. Catch up speed (mph/kph)	_____
8. Time and location of scheduled halts	_____
9. Time unit leaves present position	_____
10. Order of march	_____

3

3-3

3

<b>ACTIONS DURING MARCH</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Arrive at SP on time at march speed with proper march interval</b>	
<b>2</b>	<b>Maintain ground and air security</b>	
<b>3</b>	<b>Observe vehicle sectors of responsibility</b>	
<b>4</b>	<b>Report SP, critical points, RP (unless under radio listening silence)</b>	
<b>5</b>	<b>If under radio listening silence - use hand and arm signals, flag signals, or flashlight signals</b>	

**3**

**3-4**

**3**

<b>ACTIONS AT HALTS</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Pull to side of route - maintain order</b>	
<b>2</b>	<b>Establish/maintain security</b>	
<b>3</b>	<b>Move disabled vehicles off road - post guides to direct traffic</b>	
<b>4</b>	<b>Maintain observation/contact with other vehicles</b>	
<b>5</b>	<b>Report status</b>	
<b>6</b>	<b>Take appropriate actions/repair vehicles if possible</b>	

**3**

**3-5**

**3**

ACTIONS AT ASSEMBLY AREA		
ITEM	ACTION	✓
1	Follow guides into preselected secure positions	
2	Clear RP without halting	
3	Emplace/maintain security/OPs	
4	Conduct fire planning	
5	Establish wire commo net/ coordinate with other units	
6	Check/adjust positions; camouflage positions	
7	Start maintenance/resupply/ rearming	
8	Prepare/rehearse reaction plan	

3

3-6

3

PREPARATION FOR ATTACK		
TASK	ACTION	✓
1	Issue warning order	
2	Move to assembly area	
3	Perform commo check	
4	Check weapons	
5	Check key equipment	
6	Rehearse critical tasks	
7	Recon rtes to LD/OBJ	
8	Issue OPORD	
9	Resupply, rearm, refuel	
10	Coordinate w/higher, supporting, adjacent units	
11	Rehearse	
12	Conduct PMCS as required	
13	Check/integrate attachments	

4

4-1

4

PREPARATION FOR ATTACK		
TASK	ACTION	✓
14	Check NBC situation/confirm MOPP status	
15	Inspect troops	
16	Inspect vehicles	
17	Feed troops	
18	Rest troops	
19	Move to LD	
<b>Notes:</b> Several steps may occur concurrently.		

4

4-2

4



CONSOLIDATION		
STEP	ACTION	✓
1	Eliminate all remaining enemy resistance on objective	
2	Occupy hasty positions/ prepare for counterattack	
3	Bring up base of fire element	
4	Prepare for a counterattack	
5	Position key weapon systems	
6	Develop quick fire plan	
7	Prepare range cards	
8	Begin planning to continue attack (map recon, orders)	
Notes:		

4

4-3

4

REORGANIZATION		
STEP	ACTION	✓
1	REESTABLISH CHAIN OF COMMAND	
	Restore commo with higher, adjacent, FSO	
	Report status: ACE (AMMO/ Casualties/Equipment)	
	Request resupply as needed	
2	REESTABLISH SECURITY	
	Reman key weapons	
	Redistribute ammo, supplies, equipment as needed	
3	CLEAR OBJECTIVE OF CASUALTIES & EPW	
	Treat, evacuate, process	

4

4-4

4

REORGANIZATION		
STEP	ACTION	✓
4	PREPARE FOR NEXT MISSION	
	Relocate weapons & positions Reoccupy & repair positions Repair obstacles & mines Repair & maintain equipment	
Notes:		

4

4-5

4

<b>DEFENSIVE PRIORITY OF WORK</b>		
<b>STEP</b>	<b>TASK</b>	<b>✓</b>
<b>1</b>	<b>Establish local security</b>	
<b>2</b>	<b>Position key weapons &amp; vehicles</b>	
<b>3</b>	<b>Posn sqds/assign sectors</b>	
<b>4</b>	<b>Set up commo net</b>	
<b>5</b>	<b>Coordinate with adjacent units for interlocking sectors</b>	
<b>6</b>	<b>Clear fields of fire</b>	
<b>7</b>	<b>Prepare range cards</b>	
<b>8</b>	<b>Prepare squad &amp; platoon sector sketches</b>	
<b>9</b>	<b>Site final protective line (FPL) and fires (FPF), priority targets</b>	

**5**

**5-1**

**5**

<b>DEFENSIVE PRIORITY OF WORK</b>		
<b>STEP</b>	<b>TASK</b>	<b>✓</b>
<b>10</b>	<b>Prep fighting positions</b>	
<b>11</b>	<b>Emplace mines &amp; obstacles</b>	
<b>12</b>	<b>Est fire control measures</b>	
<b>13</b>	<b>Assign alternate &amp; supplementary battle positions</b>	
<b>14</b>	<b>Take NBC protective measures</b>	
<b>15</b>	<b>Improve primary positions</b>	
<b>16</b>	<b>Prep alternate then suppl posns</b>	
<b>17</b>	<b>Establish sleep/rest plan</b>	
<b>18</b>	<b>Recon supply/evac routes</b>	
<b>19</b>	<b>Rehearse actions on contact</b>	
<b>20</b>	<b>Stockpile ammo, food, water</b>	
<b>21</b>	<b>Continue to improve positions</b>	

**5**

**5-2**

**5**

DEFENSE PLANNING OUTLINE	
1. Commander's intent	_____
	_____
2. Platoon/squad mission	_____
	_____
3. Position in company defense	_____
	_____
4. Sectors of fire/EAs/TRPs	_____
	_____
	_____
5. Fire support available	_____
	_____
6. Evacuate/destroy procedures for damaged vehicles	_____
	_____
	_____

5

5-3

5

DEFENSE PLANNING OUTLINE	
7. Evacuation procedures for friendly casualties	_____
8. Place to take EPW	_____
9. Special signals to use	_____
10. On-order mission for platoon/squad	_____
11. Position and mission of units on flanks	_____
12. Position and mission of units in the rear	_____
	_____
	_____

5

5-4

5

<b>COORDINATION CHECKLIST</b>		
<b>STEP</b>	<b>ITEM</b>	<b>✓</b>
<b>1</b>	<b>Location of leaders</b>	
<b>2</b>	<b>Location of primary, alternate, &amp; supplementary positions</b>	
<b>3</b>	<b>Sectors of fire of Machine Guns, anti-armor weapons &amp; subunits</b>	
<b>4</b>	<b>Route to alternate &amp; supplementary positions</b>	
<b>5</b>	<b>Location of dead space between platoons &amp; squads &amp; how to cover it</b>	
<b>6</b>	<b>Location of OPs &amp; withdrawal routes back to the platoon or squad position</b>	
<b>7</b>	<b>Location &amp; types of obstacles &amp; how to cover them</b>	

**5**

**5-5**

**5**



<b>COORDINATION CHECKLIST</b>		
<b>STEP</b>	<b>ITEM</b>	<b>✓</b>
<b>8</b>	<b>Patrols - size, type, times of departure &amp; return &amp; routes</b>	
<b>9</b>	<b>Fire support planned</b>	
<b>10</b>	<b>Location, activities &amp; passage plan for scouts &amp; other units forward of platoon position</b>	
<b>11</b>	<b>Signals for fire/cease fire &amp; any emergency signals</b>	
<b>12</b>	<b>Engagement &amp; disengagement criteria</b>	
<b>13</b>	<b>Location of coordination points</b>	

**5**

**5-6**

**5**

<b>ESTABLISH OBSERVATION POST</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Select site - cover &amp; concealment Overlapping sectors</b>	
<b>2</b>	<b>Designate OP security &amp; secure reporting procedures Establish withdrawal plan with procedures &amp; routes</b>	
<b>3</b>	<b>Prepare to call for/adjust indirect fire; use binos/ NODs; navigation tools &amp; commo equipment</b>	
<b>4</b>	<b>Conduct surveillance - name observer, recorder &amp; security Search, identify &amp; report personnel, vehicles, etc. Use overlapping sectors of observation</b>	
<b>5</b>	<b>Change observers every 20-30 minutes as situation permits</b>	

**5**

**5-7**

**5**

<b>FIGHTING POSITION GUIDELINES</b>		
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>✓</b>
<b>1</b>	<b>Protection</b> <b>Position provide cover &amp; concealment - make sure it cannot be seen</b> <b>Fill sandbags 3/4 full</b> <b>Revet excavations in sandy soil</b> <b>Check stabilization of wall bases</b> <b>Inspect daily, especially after rain &amp; after direct/indirect fires</b> <b>Maintain, repair, improve</b> <b>Use proper materiel, correctly</b>	
<b>2</b>	<b>Site to ensure engagement to max eff range &amp; provide interlocking fires</b> <b>Priority to effective weapon system use; METT-T dependent</b>	
<b>3</b>	<b>Prep by stages with inspection</b> <b>Improvement is progressive</b>	

**5**

**5-8**

**5**

<b>BUILD FIGHTING POSITION</b>	
<b>STAGE</b>	<b>ACTION</b>
<b>1</b>	<u><b>Establish position:</b></u> <b>Leader check fields of fire,</b> <b>soldier emplace sector stakes</b> <b>Position log or sandbag</b> <b>between stakes</b> <b>Scoop out elbow holes</b> <b>Position lim vis aiming stakes</b> <b>Trace outline on ground</b> <b>Clear fields of fire</b> <b>Leader inspects position</b>
<b>2</b>	<u><b>Emplace walls:</b></u> <b>1 helmet distance</b> <b>from hole to start of cover</b> <b>Front wall 2-3 sandbags high by</b> <b>2 M16s long for 2 man position</b> <b>Flank wall same height, 1 M16</b> <b>long; rear wall 1 sandbag high</b> <b>by 1 M16 long</b> <b>Stakes required to hold logs</b> <b>Leader inspects position</b>

**5**

**5-9**

**5**

BUILD FIGHTING POSITION	
STAGE	ACTION
3	<u>Dig the position:</u> throw & pack dirt Armpit deep Parapets filled, all camouflaged Grenade sumps dug/floor sloped Rucksack storage optional Leader inspects position
4	<u>Overhead cover:</u> camouflage blended, cannot detect at 35M Logs placed over center front to rear Waterproofing (plastic bags, ponchos) placed over top 6" - 8" of dirt/sandbags piled on top Overhead cover & bottom camouflaged Leader inspects position

5

5-10

5

<b>RANGE CARD PREPARATION</b>		
<b>Note: Make card and copy for each primary, alternate, supplementary position</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Draw symbol for weapon/ position in center circle</b>	
<b>2</b>	<b>Draw/label L&amp;R sector limits</b>	
<b>3</b>	<b>Determine range value for each circle by dividing range to most distant terrain feature by number of circles &amp; label card</b>	
<b>4</b>	<b>Draw final protective lines/ principal direction of fire</b>	
<b>5</b>	<b>Draw and number TRPs, RPs and possible EAs as ordered</b>	
<b>6</b>	<b>Show dead space areas and label</b>	
<b>7</b>	<b>Draw max engagement lines</b>	
<b>8</b>	<b>Draw terrain features/mark wpn ref point from terrain or grid</b>	

**5**

**5-11**

**5**

<b>RANGE CARD PREPARATION</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>9</b>	<b>Fill in data section</b>	
	<b>Identify primary, alternate or supplementary position</b>	
	<b>Date &amp; time range card complete</b>	
	<b>Identify weapon/vehicle</b>	
	<b>List L&amp;R limits, TRPs, ref points in numerical order</b>	
	<b>Show gun elev (mils), ammo, range (meters) to limits, TRPs &amp; ref points, describe objects</b>	
<b>10</b>	<b>Fill in Wpn ref data (description, grid, magnetic az, distance from WRP to position)</b>	
<b>11</b>	<b>Fill in Marginal info, not higher than company &amp; direction of magnetic north arrow</b>	

**5**

**5-12**

**5**

[illegible]

5

**5-13**

5



<b>RANGE CARD PREPARATION</b>					
STANDARD RANGE CARD					
For use on the form and Fig. 5-14. The procedure is in 5-14.1.					
ROD <u>1</u>	May be used for all types of direct fire weapons.				MAGNETIC NORTH
PLT <u>2</u>					
CO <u>6</u>					
POSITION IDENTIFICATION <b>PRIMARY</b> DATE <u>3 MAR 89 / 1140 HRS</u>					
WEAPON		M2 C-21		EACH CIRCLE EQUALS <u>100</u> METERS	
NO.	DIRECTION/DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION
L	350°/5800M	00M	2000m	TOW 2	FARM HOUSE
R	105°/ 920M	110M	2400m	TOW 2	R'SIDE WOODLINE
1	6400M	+30M	3200m	TOW 2	RP - HILLTOP
2	5910M	+10M	2700m	TOW 2	TRP - AB002 RJ
3	60M	-10M	1800M	TOW 2	TRP - AB003 RJ
REMARKS:					
4 WRP - RJ AT LN 13629411, 100° AT 320M					
A FORM 5-14.1 (1-80)					

5

5-14

5

<b>SECTOR SKETCH PREPARATION</b>		
<b>Make card and copy for each primary, alternate and supplementary position</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Draw your unit sector or EA</b>	
<b>2</b>	<b>Draw main terrain features in sector(s) and range to each</b>	
<b>3</b>	<b>Draw subunit positons</b>	
<b>4</b>	<b>Draw subunit primary and secondary sectors of fire</b>	
<b>5</b>	<b>Draw weapon positions with primary sectors of fire for each</b>	
<b>6</b>	<b>Draw MEL for each weapon/ ammo</b>	
<b>7</b>	<b>Draw machine gun/cannon final protective lines or principal direction of fire</b>	
<b>8</b>	<b>Draw location of CP/OP</b>	
<b>9</b>	<b>Draw TRPs and RPs in sector</b>	

**5**

**5-15**

**5**

SECTOR SKETCH PREPARATION		
ITEM	ACTION	✓
10	Draw mines/obstacles	
11	Draw indirect fire target locations/final protective fire locations	
12	Draw and label dead space	
13	Draw patrol routes	
14	Draw locations, sector of fire of other weapons in your sector	
15	Draw location of NODs for use in limited visibility plan	
16	Place your unit ID, DTG prepared, and magnetic north arrow on sketch (pencil)	
Notes:		

5

5-16

5

[illegible]

5

<b>OCCUPATION OF A BATTLE POSITION (BP)</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Move to turret-down psn on BP</b>	
<b>2</b>	<b>Keep rest of plt in hide psn(s)</b>	
<b>3</b>	<b>Recon primary, alternate &amp; supplementary positions</b>	
<b>4</b>	<b>Designate general location of primary posns; move platoon</b>	
<b>5</b>	<b>Designate primary sectors of fire/EA/TRP</b>	
<b>6</b>	<b>Designate alt &amp; suppl psns, sectors of fire/EA/TRP</b>	
<b>7</b>	<b>Coord w/flank/adjacent units OPs/patrols Observation &amp; fields of fire Positions/routes of withdrawal Wire commo</b>	
<b>8</b>	<b>Rpt situation to Co/Tm Cdr</b>	
<b>9</b>	<b>Improve psn; plan rts to next BP</b>	

**5**

**5-18**

**5**

<b>FIGHTING FROM A BATTLE POSITION (BP)</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Determine targets to engage</b>	
<b>2</b>	<b>Determine methods of target engagement</b>	
<b>3</b>	<b>Send contact and spot report</b>	
<b>4</b>	<b>Issue platoon fire commands</b>	
<b>5</b>	<b>Call for indirect fire as needed</b>	
<b>6</b>	<b>Send spot reports</b>	
<b>7</b>	<b>Move to subsequent BP</b>	
<b>8</b>	<b>Keep Co/Tm Cdr informed of situation and location</b>	
<b>9</b>	<b>Organize to fight from BPs</b>	

**5**

**5-19**

**5**

<b>FIRE DISTRIBUTION AND CONTROL</b>	
<b>ITEM</b>	<b>PRINCIPLE</b>
<b>1</b>	<b>Engage critical targets first; engage laterally and in depth</b>
<b>2</b>	<b>Avoid target overkill</b>
<b>3</b>	<b>Use each weapon in its best role</b>
<b>4</b>	<b>Destroy most dangerous targets first, considering range, terrain and weapon capability</b>
<b>5</b>	<b>Concentrate on long range targets if possible, to gain standoff advantage</b>
<b>6</b>	<b>Take best shots; expose only systems actually needed</b>
<b>7</b>	<b>Control firing; conserve ammo if possible</b>
<b>8</b>	<b>Avoid fratricide</b>
<b>9</b>	<b>Engage different threats simultaneously</b>

**5**

**5-20**

**5**

<b>CAMOUFLAGE</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Prepare individual/equipment</b>	
<b>2</b>	<b>Consider position from enemy viewpoint</b>	
	<b>Use natural concealment/blend</b>	
	<b>Reduce shine and movement</b>	
	<b>Observe from prone position</b>	
	<b>Don't skyline when moving</b>	
<b>3</b>	<b>Inspect the following areas</b>	
	<b>Individuals/Fighting positions</b>	
	<b>Vehicles and routes in and out</b>	
	<b>Noise/light discipline plan</b>	
	<b>Camouflage nets</b>	
<b>4</b>	<b>Break up vehicle silhouettes - use nets</b>	
<b>5</b>	<b>Reduce glare and signatures</b>	
<b>6</b>	<b>Reduce vehicle noise</b>	

**5**

**5-21**

**5**



PHYSICAL SECURITY		
STEP	ACTION	✓
1	Conduct patrols	
2	Conduct stand-to (general)	
	Troops ready	
	Vehicles topped off/loaded/ ready	
	Basic load of missiles/ammo	
	Weapons loaded/ready	
	Radios on/tested	
3	Conduct stand-to (evening)	
	Emplace vision block covers/ turn internal lights off	
	Ready driver's night vision viewer	
	Test panel control lights/ thermal sights	
	Prepare NVGs/NODs	

5

5-22

5

PHYSICAL SECURITY		
STEP	ACTION	✓
	Check all batteries	
	Upload wpns and ammo	
	Inspect vehicle position to insure no light is visible after dark	
4	Silent mounted watch	
	Assign sectors for surveillance	
	Use manual power when possible	
	Use radio listening silence	
	Rotate troops using thermal sight(s)	
	Lay guns on primary AAs/EAs	
5	Post local security	
	Assign sectors/observe sectors	
	Adjust position(s) closer to vehicle(s) at night	

5

5-23

5

<b>DEFENDING DURING LIMITED VISIBILITY</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Employ long range STANO equip (GSR, sensors, NOD)</b>	
<b>2</b>	<b>Coordinate any movement outside battle psn boundaries with higher and adjacent units</b>	
<b>3</b>	<b>Redeploy some units &amp; weapons to concentrate along dismount- ed avenues of approach</b>	
<b>4</b>	<b>Employ scouts, OP, patrols, ambushes, and armor killer teams forward on secondary AA and between positions</b>	
<b>5</b>	<b>Employ nuisance obstacles and early warning devices along likely night approaches</b>	

**5**

**5-24**

**5**

DEFENDING DURING LIMITED VISIBILITY		
ITEM	ACTION	✓
6	Plan required movement of weapons, units, and massing of fires on enemy approaches	
7	Rehearse movement of weapons, units, and massing of fires on enemy approaches	
8	Reposition weapons to take advantage of differences between enemy and friendly STANO devices	
9	Plan illumination on or behind engagement areas to silhouette enemy	

5

5-25

5

<b>DEFENDING DURING LIMITED VISIBILITY</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>10</b>	<b>Move TRPs and/or EAs closer to defensive positions or move weapons closer to them-use METT-T</b>	
<b>11</b>	<b>Commence adjustments to defensive organization before dark</b>	
<b>12</b>	<b>Complete return to daylight positions before dawn</b>	
<b>13</b>	<b>Move closer to avenue(s) of approach you guard during bad weather</b>	
<b>14</b>	<b>Be aware that sensors and radar may still penetrate bad weather</b>	

**5**

**5-26**

**5**

<b>FUNDAMENTALS OF DELAY</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Centralized control and decentralized execution</b>	
	<b>Maintain enemy contact</b>	
	<b>Coordinate flank security</b>	
<b>2</b>	<b>Maximize OCOKA</b>	
	<b>Observation and fields of fire</b>	
	<b>Cover and concealment</b>	
	<b>Obstacles</b>	
	<b>Key terrain</b>	
	<b>Avenues of approach</b>	
<b>3</b>	<b>Force enemy maneuver</b>	
	<b>Use snipers, ambushes to slow enemy</b>	
	<b>Trade space for time</b>	

**6**

**6-1**

**6**

FUNDAMENTALS OF DELAY		
ITEM	ACTION	✓
4	Use obstacles	
	Natural and reinforcing	
	Cover by observation/fire	
5	Maintain enemy contact	
	Keep enemy in sight	
	Observe and adjust fires	
6	Keep free to maneuver	
	<u>Avoid</u> decisive engagement	
	Displace to next position	
7	Missions: delay in sector or forward of a line or position for specified time	
8	Assign sectors for each committed unit/avenue of approach	
9	Each unit sets up own security	

6

6-2

6

DISENGAGEMENT PLANNING	
1. Scheme of maneuver	_____
	_____
	_____
2. Time of disengagement	_____
	_____
3. Priority of disengagement	_____
	_____
4. Location of new positions	_____
	_____
5. Size and composition of advance parties	_____
	_____
6. Size and composition of overwatch forces	_____
	_____
7. Location of overwatch forces	_____
	_____
8. Combat service support	_____
	_____

7

7-1

7



<b>DISENGAGEMENT ACTIONS</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Deceive the enemy with smoke, patrols, fires, radio transmissions</b>	
<b>2</b>	<b>Use overwatch elements to keep enemy pressure off disengaging forces</b>	
<b>3</b>	<b>Maintain OPSEC/COMSEC</b>	
<b>4</b>	<b>Recon/prepare routes</b>	
<b>5</b>	<b>Recon/prepare new positions</b>	
<b>6</b>	<b>Plan to move wounded</b>	
<b>7</b>	<b>Plan to move equipment</b>	
<b>8</b>	<b>Move CSS early</b>	
<b>9</b>	<b>Move during limited visibility</b>	
<b>10</b>	<b>Use obstacles to slow enemy</b>	

**7**

**7-2**

**7**

### **PASSAGE OF LINES COORDINATION**

- 1. Disposition of the stationary force**
- 2. Contact points**
- 3. Select routes**
- 4. Size of passage lanes**
- 5. Attack position (forward move)**
- 6. Assembly area (rearward move)**
- 7. Initial location**
- 8. Time of transfer of responsibility  
for area**
- 9. Traffic control/guides**
- 10. Communications/call signs/  
frequencies**
- 11. Supporting fires**
- 12. Recognition signals**
- 13. Combat support/combat service  
support**
- 14. Execution**

**7**

**7-3**

**7**

WITHDRAWAL UNDER ENEMY PRESSURE		
ITEM	ACTION	✓
1	Withdrawal principles	
	Co Cdr controls sequence of plt withdrawals/PL controls squads	
	Initiate break contact drill using fire, maneuver, overwatch, obscuration	
2	Disengagement technique based on enemy status, terrain, available covering fires	
	Simultaneous when overwatch is present; by teams; thinning the lines	

7

7-4

7

WITHDRAWAL UNDER ENEMY PRESSURE		
ITEM	ACTION	✓
3	Maintain base of fire	
	Move AT weapons/tanks back first against enemy mounted attack	
	Use Infantry in close terrain/ limited visibility/against dismounted enemy	
4	Plan for/specify	
	Scheme for maneuver	
	Time of withdrawal	
	Location of new positions	
	Size/make-up of advance party/overwatch forces	
	Battle/overwatch positions	
	Routes/checkpoints	

7

7-5

7

WITHDRAWAL UNDER ENEMY PRESSURE		
ITEM	ACTION	✓
	Remount point(s)	
	Evacuation of wounded	
	Evacuation of equipment	
	Priorities	
	Obstacles	
	Items to destroy	
Notes:		

7

7-6

7

WITHDRAWAL NOT UNDER ENEMY PRESSURE		
ITEM	ACTION	✓
1	Withdrawal principles	
	Speed/secretcy/deception	
	At night/in reduced visibility	
	As part of a larger force to perform another mission	
2	For plt as company security force	
	Cover entire company area	
	Reposition sqds/wpns to cover withdrawal	
	Place 1 sqd's key weapons in each plt psn to cover most dangerous AA	
	Co XO or PL is security force leader	

7

7-7

7

WITHDRAWAL NOT UNDER ENEMY PRESSURE		
ITEM	ACTION	✓
3	For security force made up of 1 sqd/1mg tm/2 dragons	
	SL left in position is plt security leader	
	Reposition sqd to cover plt withdrawal and plt area	
	CP scty force Cdr controls plt scty force during withdrawal	
4	Security Force	
	Conceals withdrawal	
	Deceives enemy-keeps up normal operating patterns	
	Provides covering fire if enemy attacks	
	Withdraw when company is at next position or as ordered	

7

7-8

7

WITHDRAWAL NOT UNDER ENEMY PRESSURE		
ITEM	ACTION	✓
	Gets withdrawal order by land line or radio codeword	
	Uses company plan to withdraw	
	Reassembles to move to rear	
	If under attack, conducts fire and maneuver to rear until they break contact	
5	Quartering party	
	Send ahead before withdrawal	
	PSG and guide for each squad	
	Recons and selects psn/ sectors/routes/OP for plt	
	Meets and guides plt into psn	
	PSG meets/briefs PL on position/situation	

7

7-9

7



WITHDRAWAL NOT UNDER ENEMY PRESSURE		
ITEM	ACTION	✓
6	Company OPORD contains	
	Time withdrawal will start	
	Location of plt/co assembly area & routes between	
	Plt mission(s) upon arrival	
	Size/org/Cdr of scty force	
	Next co/plt mission	
7	Platoon Leader plans	
	When his withdrawal starts	
	Location of sqd/plt assembly areas and routes between	
	Sqd missions on arrival	
	Size/org/Cdr of scty force	
	Next plt/sqd mission(s)	

7

7-10

7

RELIEF IN PLACE		
ITEM	ACTION	✓
1	Incoming leader recons area	
2	Incoming and outgoing leaders coordinate	
3	Exchange liaison personnel	
4	Coordinate positions of weapons and vehicles	
5	Exchange range cards and fire plans	
6	Exchange relief or organic fire support elements	
7	Coordinate obstacles locations	
8	Transfer responsibility for minefields	
9	Coordinate routes into and out of positions	
10	Coordinate vehicle guides	

7

7-11

7

RELIEF IN PLACE		
ITEM	ACTION	✓
11	Transfer excess ammo, wire lines, POL, and other material to incoming unit	
12	Coordinate commo for one net during relief	
13	Coordinate enemy situation and intelligence	
14	Coordinate sequence of relief	
15	Coordinate time of change of responsibility for the area	
Notes:		

7

7-12

7

PATROL PLANNING STEPS		
STEP	ACTION	✓
1	Identify actions on objective then plan backward	
2	Analyze mission in accordance with factors of METT-T	
3	Task organize	
4	Organize patrol	
5	Select personnel/wpns/equip	
6	Issue warning order	
7	Coordinate	
8	Make recon	
9	Complete detailed plans	
10	Issue order	
11	Supervise/inspect/rehearse	
12	Execute mission	

8

8-1

8

PATROL COORDINATION		
ITEM	DESCRIPTION	✓
1	Between leader & BN staff or CO CDR	
	Changes/updates to enemy situation	
	Best use of terrain for routes, RPs, PBs	
	Light/weather data	
	Changes in friendly sit	
	Attachment of soldiers with special skills/equip	
	Use/location of LZs	
	Departure/reentry of friendly lines	
Notes:		

8

8-2

8

PATROL COORDINATION		
ITEM	DESCRIPTION	✓
	Fire support on obj & along planned primary/alt routes	
	Rehearsal areas & times	
	Special equipment	
	Transportation support	
	Signal plan	
2	Coord with unit thru which plt/sqd will conduct forward & rearward passage of lines	
3	PL coordinate with leaders of other patrols	
Notes:		

8

8-3

8

COMPLETE THE PLAN		
ITEM	DESCRIPTION	✓
1	Essential & supporting tasks on objective, RPs, danger areas, security/surveillance locations, along routes/passage lanes	
2	Key travel & execution times for movement, leader recon, estab of security, completion of tasks on obj, movement to ORP, return through friendly lines	
3	Primary & alternate routes	
4	Signals, including rehearsal of special signals	

8

8-4

8

COMPLETE THE PLAN		
ITEM	DESCRIPTION	✓
5	Challenge & password forward of friendly lines (SOI not forward of FEBA)	
6	Actions on enemy contact, including WIA/KIA, EPWs	
7	Contingency plans	
	Where leader is going Who else is going along Amount of time leader is planning to be gone Actions to be taken if leader does not return Actions on chance contact while leader is gone	

8

8-5

8



DEPARTURE FROM FRIENDLY LINES	
ITEM	DESCRIPTION
1	Coordinate with CDR of forward unit/leaders of other patrols SOI, plans, password, procedures, rally points, enemy information
2	PL provide unit ID, patrol size, departure & return times, AO Fwd unit provide info on terrain, en posns/activity, ambush sites, friendly posns, OPs, obstacles & fire plan, support available
3	Planning Move to initial rally point Complete final coordination Move to/thru passage point/single file Establish security

8

8-6

8

RALLY POINTS	
ITEM	DESCRIPTION
1	<b>Selection</b> <b>Easy to find</b> <b>Offer cover &amp; concealment</b> <b>Away from natural lines of drift</b> <b>Defendable for short periods</b>
2	<b>Type</b> <b>Initial - inside friendly lines</b> <b>En route - every 100-400 meters</b> <b>based on terrain, vegetation,</b> <b>visibility</b> <b>Objective rally point (ORP) out of</b> <b>sight, sound, small arms range</b> <b>Reentry rally point outside friendly</b> <b>FPF</b> <b>Near &amp; far side rally points -</b> <b>danger areas</b>

8

8-7

8

PATROL REPORT (DEBRIEFED)	
A. Patrol size and composition	_____
B. Mission (type, location, purpose of patrol)	_____
C. Time of Departure and return	_____
D. Routes out and back (checkpoints, grid, overlays)	_____
E. Description of terrain and enemy position	_____
F. Results of enemy encounters	_____
G. Misc information/map corrections	_____
H. Condition of personnel	_____
I. Conclusions/recommendations	_____
	_____

8

8-8

8

<b>SELECTION OF A PATROL BASE</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Pick tentative PB site from map or aerial recon</b>	
<b>2</b>	<b>Plan for alternate site; recon and observe until occupied or not needed</b>	
<b>3</b>	<b>Select site considering lack of tactical value to enemy, terrain, trafficability, water</b>	
<b>4</b>	<b>Plan for OPs/commo with OPs</b>	
<b>5</b>	<b>Plan for defense of PB, withdrawal routes, rally and rendezvous points</b>	
<b>6</b>	<b>Provide security/alert plan, camouflage, noise/light/litter discipline</b>	
<b>7</b>	<b>Avoid enemy positions, built up areas, ridges, roads/trails, slopes</b>	

**8**

**8-9**

**8**

<b>OCCUPATION OF A PATROL BASE</b>	
<b>STEP</b>	<b>ACTION</b>
<b>1</b>	<b>Approach - halt patrol Conduct leader recon of site</b>
<b>2</b>	<b>Recon</b>
	<b>Patrol ldr designates entry point/CP at center of base</b>
	<b>Element ldrs recon sectors and return to CP</b>
	<b>Ldr sends 2 to bring patrol fwd</b>
<b>3</b>	<b>Occupation single file/camouflaged</b>
<b>4</b>	<b>Ldr check perimeter by meeting element leaders</b>
<b>5</b>	<b>R&amp;S team recon fwd, move clockwise</b>
<b>6</b>	<b>R&amp;S teams report en activity, OPs, RPs, withdrawal routes</b>
<b>7</b>	<b>Ldr designates routes and RPs outside</b>
<b>8</b>	<b>Each element sets commo, OPs</b>

**8**

**8-10**

**8**

<b>PATROL BASE ACTIVITIES</b>	
<b>STEP</b>	<b>ACTION</b>
<b>1</b>	<b>Security</b> One point of entry/exit Noise light litter discipline - challenge all Aiming stakes & claymores in Each sqd estab OP/dig hasty posns SLs prep sector sketch/ranch cards
<b>2</b>	<b>Alert plan &amp; stand-to time day &amp; night</b> Check posns, OPs, rotate leaders
<b>3</b>	<b>Withdrawal plan</b> Signals, order, rendezvous point
<b>4</b>	<b>Maintenance plan wpns, commo, NVDs</b>
<b>5</b>	<b>Sanitation &amp; personal hygiene plan</b>
<b>6</b>	<b>Mess plan &amp; water resupply</b>
<b>7</b>	<b>Sterilize upon departure</b>

8

8-11

8

PRINCIPLES OF A RAID		
ITEM	TASKS	✓
1	Conduct with combat patrol; plan withdrawal	
2	Attack /destroy posn/ installation	
3	Destroy or capture enemy troops/equipment	
4	Rescue friendly personnel	
5	Gather priority intelligence requirements (PIR)	
6	Do not become decisively engaged	
7	Attack when least expected, in poor visibility, from unexpected direction and terrain	
8	Concentrate fire at critical points	
9	Achieve violence by surprise, massed fire, aggressive attack	

8

8-12

8

<b>CONDUCT A RAID</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Patrol move to ORP for recon</b>	
	<b>Recon &amp; secure ORP, conduct leader recon of objective</b>	
	<b>Coordinate movements of elements to objective</b>	
<b>2</b>	<b>SECURITY ELEMENT DUTIES</b>	
	<b>Warn of enemy approach</b>	
	<b>Block avenues of approach into/prevent escape from objective area- seal off area</b>	
	<b>Inform patrol leader of changes on objective</b>	
	<b>Shoot only if detected or on order; cover withdrawal of assault and support elements</b>	

**8**

**8-13**

**8**



<b>CONDUCT A RAID</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>3</b>	<b>SUPPORT ELEMENT DUTIES</b>	
	Move into psn prior to assault element	
	Cover withdrawal of assault element	
	Withdraw on order/signal	
<b>4</b>	<b>ASSAULT ELEMENT DUTIES</b>	
	Deploy close to objective for immediate assault (if detected)	
	Seize, secure objective when supporting fire lifts or shifts	
	Protect demolition/search teams	
	Withdraw on order/signal	
<b>5</b>	<b>Reorganize patrol slightly away from ORP: report, redistribute ammo, treat casualties</b>	

**8**

**8-14**

**8**

PRINCIPLES OF AN AMBUSH		
ITEM	PRINCIPLE	✓
1	Place effective fires into entire kill zone - assign sectors	
2	Use well-trained teams with simple plan and prior recon	
3	Maintain security, especially when returning to friendly psn	
4	Soldier and weapon placement - priority to concealment and fields of fire	
5	Clear signals to open/shift/cease fire	
6	<u>Point ambush</u> - enemy attacked in single kill zone	
7	<u>Area ambush</u> - unit deploys to 2 or more related point ambushes in area	
	Security elements/teams on flank & rear if possible	

8

8-15

8

PRINCIPLES OF AN AMBUSH		
ITEM	PRINCIPLE	✓
	PI reorganize into assault element, support element, security element	
	Man trap/natural boundary on far side of kill zone Plan indirect fires to seal area & cover withdrawal Initiate with most casualty producing wpn - have backup	
8	<u>Vehicular ambush</u> - stop lead & trail vehicles in kill zone; kill armor first	
9	<u>Night ambush</u> similar to day	
	Control soldiers/issue clear orders & signals	
	Use sector stakes Move to position after EENT; plan illum	

8

8-16

8

<b>ORGANIZE AN AMBUSH</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Point or area? L-shaped or linear?</b>	
<b>2</b>	<b>Are routes to &amp; from concealed &amp; known to all?</b>	
<b>3</b>	<b>Do positions provide early warning &amp; effective fires onto kill zone?</b>	
<b>4</b>	<b>Is kill zone isolated &amp; dead space covered w/mines, demo, indir fire?</b>	
<b>5</b>	<b>Does everyone know signal (&amp; backup) to warn of enemy approach, initiate ambush, shift/lift, withdraw?</b>	
<b>6</b>	<b>Does everyone know withdrawal routes &amp; sequence?</b>	

**8**

**8-17**

**8**

ORGANIZE AN AMBUSH		
STEP	ACTION	✓
7	Are routes covered by mines or indirect fire if ambush fails?	
8	Does everyone know what to do if ambush detected?	
9	What is the running password?	
10	Does everyone know teams/tasks?	
Notes:		

8

8-18

8

CONDUCT AN AMBUSH		
STEP	ACTION	✓
1	Ambush formation based on	
	METT-T/overall situation	
	Ease of control/target	
2	Patrol halt at ORP	
	Establish security/confirm location	
	Recon objective to confirm plan	
	Return to ORP/leave R&S team	
3	<u>Security</u> element secure ORP & flank of ambush site	
4	<u>Support/assault</u> elements leave ORP	
	When security in position	
	Occupy positions	
	Support overwatches assault move to ambush site	

8

8-19

8

<b>CONDUCT AN AMBUSH</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>5</b>	<b>Patrol waits for target after all elements in position</b>	
<b>6</b>	<b>Security team alerts patrol on enemy direction of movement, target size, special weapons/ equipment</b>	
<b>7</b>	<b>Patrol ldr alerts other elements</b>	
	<b>Initiates when most of target in kill zone</b>	
	<b>Lift/shift fire if assault into zone required</b>	
<b>8</b>	<b>Withdraw to ORP for accountability, disseminate information, return to friendly position</b>	

**8**

**8-20**

**8**

PLAN A RECON MISSION		
STEP	ACTION	✓
1	Make estimate of the situation	
	Current intelligence	
	Capabilities of unit	
	Task organize to support mission	
2	Plan	
	Intelligence	
	Deceptive measures	
	Use of smallest unit possible to accomplish mission	
	Methods to remain undetected	
	Use of STANO devices	
	Rehearsal	
	Ways to minimize audio and electronic equipment	
	Inspection of recon force and equipment	

8

8-21

8



PLAN A RECON MISSION		
STEP	ACTION	✓
3	Subordinate missions	
	Command and control	
	Recon of objective	
	Security of force	
Notes:		

8

8-22

8

<b>RECON ZONE</b>	
<b>ITEM</b>	<b>METHOD</b>
<b>1</b>	<b>Use fan method</b>
	<b>PL selects series of ORPs through zone</b>
	<b>Select recon rtes to and from ORP - overlapping rtes form fan shaped pattern around ORP. Recon elements recon adjacent rtes</b>
	<b>After recon complete, move to next ORP and repeat</b>
<b>2</b>	<b>Use converging routes method</b>
	<b>Leader select ORP. Recon rtes through zone, and then a link up point</b>
	<b>Each element recons own route; entire unit links up at end</b>

**8**

**8-23**

**8**

RECON ZONE	
ITEM	METHOD
3	Use successive sectors method
	Leader selects ORP, a series of recon rtes, and link up points
	Each link up point becomes ORP for next phase
Notes:	

8

8-24

8

RECON AREA	
ITEM	METHOD
1	<u>Separate</u> recon and security elements if objective restricted in area, clearly defined, with specific avenues of approach
	Conduct leader recon
	Designate positions for security team
	Security teams move on covered & concealed rtes to posns
	After security in place, recon element departs ORP to recon objective
	After obj recon, recon element & security return to ORP and disseminate information <u>OR</u>

8

8-25

8

<b>RECON AREA</b>	
<b>ITEM</b>	<b>METHOD</b>
<b>2</b>	<b>Combine R&amp;S elements if objective not clearly defined and located, and terrain does not permit plt to secure objective area or if detection possible</b>
	<b>One R&amp;S team stay in ORP to act as reaction force in case of contact</b>
	<b>Several R&amp;S teams recon separate parts of obj, then link up at ORP</b>
	<b>2 R&amp;S teams use ORP as release point, then link up at point on far side of objective</b>
	<b>1 R&amp;S team w/one follow on security team to follow, acts as quick reaction force; entire unit departs when recon complete</b>

**8**

**8-26**

**8**

RECON AREA	
ITEM	METHOD
4	Recon objective by long range surveillance if possible; short range surveillance if required by METT-T; avoid detection
	Techniques: observe/collect/record information about enemy/ use binos Well-rehearsed plan Cover movement w/battlefield noise Establish control measures, alternate routes, fire support
Notes:	

8

8-27

8

NBC-1 REPORT		
LINE	ITEM	*CHEM/BIO
B	Position of observer - (UTM coord)	
C	Direction of attack from observer (Degrees) (Mils)	
D	Date-time group of detonation/ *area attacked (DTC)	
F	Location of attack/*area attacked (Actual) (Estimated) (UTM coord)	
G	Means of delivery (artillery, mortar, spray, etc.)	
H	Height of burst/*type of agent (Air) (Surface) (Unknown)	

9

9-1

9

NBC-4 REPORT	
LINE	ITEM
H	Height of burst/*agent-type (Air) (Surface) (Unknown)
Q	Location of reading (UTM coord) (Air) (Liquid)
R	Dose rate - measure in open, 1 meter above the ground (cGy/hr)
S	DTG of initial reading

9

9-2

9



<b>NBC-PRIOR TO ATTACK</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Increase MOPP level IAW intel</b>	
<b>2</b>	<b>Set up chemical agent alarm 100-150 m out &amp; upwind</b>	
	<b>Prevent tampering</b>	
	<b>Attach M42 to M43A1 w/wire (MAX 400M); place near PLT CP &amp; commo</b>	
	<b>Reservice/check every 24 hrs</b>	
<b>3</b>	<b>Affix M8/M9 detector paper</b>	
<b>4</b>	<b>Prep overhead cover</b>	
<b>5</b>	<b>Alert detection teams, M256 kit</b>	
<b>6</b>	<b>Leaders check for readiness</b>	
<b>7</b>	<b>Cover equipment not in active use</b>	

**9**

**9-3**

**9**

NBC-DURING ATTACK		
STEP	ACTION	✓
1	STOP BREATHING, MASK & GIVE ALARM warn subordinate & higher: send "GAS, GAS, GAS, AND GRID" message leaders give order to mask & take protective action	
2	Seek overhead cover for self, cover equipment, close up vehicle	
3	Decontaminate M258A1/M291 on skin & equip M11/M13DAP to apply DS2	
4	Go to MOPP4	
5	Initiate detection measures: vapor M256 kit; liquid M8/M9 paper; close inlet/outlet ports of M8A1 alarm	

9

9-4

9

NBC-DURING ATTACK		
STEP	ACTION	✓
6	Report; send follow up NBC1 reports	
7	Leaders check personnel & protection	
8	Continue the mission	
Notes:		

9

9-5

9

NBC-AFTER ATTACK		
STEP	ACTION	✓
1	CONTINUE THE MISSION	
2	Minimize effects on personnel/ equipment	
3	Inform CP of extent of contamination-mark personnel, equipment & areas	
4	Maintain MOPP4 until ordered to lower level	
5	Decontaminate personnel w/M258A1/M291 kits; Apply DS-2 to vehicles	
	Hasty decon: MOPP gear exchange, vehicle washdown w/M17LDS, M12	

9

9-6

9

NBC-AFTER ATTACK		
STEP	ACTION	✓
	Deliberate decon: detailed troop (unit), equipment (decon plt)	
6	Casualties - decon with PDK & wrapped as appropriate	
Notes:		

9

9-7

9

UNMASKING WITH CHEMICAL AGENT DETECTOR KIT		
STEP	ACTION	✓
1	Use all available detection equipment (M8 & M9 paper, chemical alarms, etc.) before proceeding	
2	Get Cdr's approval	
3	Employ M256 or M256A1 Detector Kit	
4	If no chemical agent detected, have 1-2 soldiers unmask <u>in shade</u> for 5 minutes; remask for 10 minutes	
5	Check for symptoms; if none, others may unmask; remain alert for symptoms	

9

9-8

9

UNMASK WITHOUT CHEMICAL AGENT DETECTOR KIT		
STEP	ACTION	✓
1	Use all available detection equip (M8 & M9 paper, chemical alarms, etc.) before proceeding	
2	Get Cdr's approval	
3	Have 1-3 soldiers hold breath & break seal of mask <u>in shade</u> for 15 seconds, eyes open	
4	Reseal, clear & check masks, wait 10 minutes	
5	Check for symptoms; if none, break seal of mask, take 2-3 breaths; repeat Step 4	
6	If no symptoms, have soldiers unmask for 5 minutes; remask for 10 minutes	
7	Check for symptoms; if none, others may unmask; remain alert for symptoms	

9

9-9

9

9

9-10

9

MOPP LEVEL	OVERGARMENTS	OVERBOOTS	MASK/HOOD	GLOVES
0	CARRIED	CARRIED	CARRIED	CARRIED
1	WORN OPEN OR CLOSED	CARRIED	CARRIED	CARRIED
2	WORN OPEN OR CLOSED	WORN	WORN	CARRIED
3	WORN OPEN OR CLOSED	WORN	WORN	WORN
4	WORN CLOSED	WORN	WORN	WORN



DETAILED TROOP DECON		
STEP	ACTION	✓
1	Equipment decon	
2	Mask/hood decon & boot shuffle	
3	Remove over garment jacket-high jumper trousers	
4	Remove boot & glove	
5	Monitor (medical/contam eval)	
6	Mask removal (vapor control line)	
7	Mask decon	
8	Re-issue point	

9

9-11

9

MOPP GEAR EXCHANGE		
STEP	ACTION	✓
	*solo    **buddy team assist	
1	Gear drop & decon*	
2	Decon hood & roll**	
3	Remove overgarment** jacket black side out trousers	
4	Remove overboots & step on jackets** Remove CP gloves**	
5	Put on overgarment*	
6	Put on overboots*	
7	Put on CP gloves*	
8	Roll down & secure hood**	
9	Secure gear*	

9

9-12

9

MARK CONTAMINATED AREA: RADIOLOGICAL/BIO/CHEM		
STEP	ACTION	✓
1	Locate/identify contaminated area	
2	For <u>radiological</u> use marker labeled ATOM. Print information so word "ATOM" faces toward you & in upright psn: print dose rate (centigrays/hr ); date/time (state ZULU or local) of reading & detonation. If unknown print "UNKNOWN"	
3	For <u>biological</u> use marker labeled BIO; for <u>chemical</u> use marker labeled GAS. Use same procedures as above, stating type of agent, if known	
4	Position markers so information faces away from contaminated area	

9

9-13

9

<b>MARK CONTAMINATED AREA: RADIOLOGICAL/BIO/CHEM</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>5</b>	<b>Attach markers so they can be seen from all routes through area; ensure each is visible from previous marker.</b>	
<b>6</b>	<b>Place ATOM markers at locations where dose rate measures 1 centigray/hr (cGy/hr) or more</b>	
<b>Notes:</b>		

**9**

**9-14**

**9**

<b>PREPARE FOR NBC ATTACK/ PROTECT AGAINST ELECTROMAGNETIC PULSE</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Ensure ALL items are covered or dug in when not in use</b>	
<b>2</b>	<b>Park vehicles with air vents away from winds; close hatches, doors, etc.</b>	
<b>3</b>	<b>Protect electronic equipment against EMP by disconnecting antennas &amp; spare equipment; shield with metal</b>	
<b>4</b>	<b>Use highest freq possible; never use commercial power. Keep cable &amp; wire short; bury 18"</b>	
<b>5</b>	<b>Use remote sets only when required; use common ground for all equipment; insulate antenna guy lines</b>	

**9**

**9-15**

**9**

SUPERVISE RADIATION MONITORING		
STEP	ACTION	✓
1	List grid coordinates of central point in area	
2	Tell IM-174/AN/VDR-2 operator to take readings from central point hourly; check that operator uses IM-174/AN/VDR-2 correctly	
3	Have operator report readings to you immediately; use NBC-4 report	
4	Take continuous readings if reading is 1 or more cGy/hr; fallout warning received or nuclear burst seen; if moving to another location	
5	Check hourly when reading drops below 1 cGy/hr	

9

9-16

9

<b>USING A DOSIMETER</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Hold viewing end of dosimeter up to your eye, pointing toward light but not directly into the sun. An IM93 must be held parallel to the ground.</b>	
<b>2</b>	<b>Point where vertical hairline crosses scale is total amount of radiation received in cGy</b>	
<b>3</b>	<b>Report the number of cGy to your Cdr</b>	
<b>Notes:</b>         		

**9**

**9-17**

**9**

<b>COLLECT/REPORT TOTAL RADIATION DOSE</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Turn in for recharging any dosimeter that does not read 0; recharge dosimeters daily</b>	
<b>2</b>	<b>Have soldiers who perform duties in unit's area wear dosimeters</b>	
<b>3</b>	<b>Collect readings from soldiers at the same time, at least once daily; ensure readings are accurate</b>	
<b>4</b>	<b>Add reported readings together; divide by number of readings</b>	
<b>5</b>	<b>Round up to nearest 10 and report to Cdr</b>	

**9**

**9-18**

**9**



<b>PRINCIPLES OF FIRE SUPPORT PLANNING/COORDINATION</b>		
<b>ITEM</b>	<b>PRINCIPLE</b>	<b>✓</b>
<b>1</b>	<b>Plan early &amp; continuously</b>	
<b>2</b>	<b>Consider all available resources &amp; means of fire support - mortars, artillery, attack helicopters, CAS</b>	
<b>3</b>	<b>Select most effective asset &amp; avoid duplication-check with higher</b>	
<b>4</b>	<b>Provide flexibility &amp; safe fires</b>	
<b>5</b>	<b>Insure continuous targeting - likely, known &amp; suspected enemy locations</b>	
<b>6</b>	<b>Before LD, LD to OBJ, on OBJ, beyond OBJ</b>	
<b>7</b>	<b>Use lowest echelon possible</b>	

**10**

**10-1**

**10**

CALL FOR FIRE	
STEP	DESCRIPTION
	STEPS 1-3 ARE REQUIRED
1	Observer ID & warning order: Adjust fire Fire for effect (FFE) Suppress (Tgt #) Immediate suppression (Grid)
2	Target location methods Grid - 6 digit grid/direction Polar - direction, distance Shift from a known point - direction to tgt, add or drop, left or right from kp (dir always OBS to TGT)
3	Target description (SNAP) Size/shape Nature/nomenclature Activity Protection

10

10-2

10

CALL FOR FIRE	
STEP	DESCRIPTION
4	Method of engagement Type of adjustments Danger close Trajectory, Ammunition Distribution
5	Method of fire & control At my command/Cannot observe Time on target Continuous/coordinated illum Cease loading Check firing/Continuous fire Repeat
6	Refinement & end of mission Correct, Record, Report battle damage assessment

10

10-3

10

10

10-4

10

STEP 1	CALL FOR FIRE CARD (STEPS 4 & 5 ARE OPTIONAL)
STEP 2	ID: WARNING ORDER: AF / FFE / S / IS POLAR / SHIFT (GRID) LOCATION: (POLAR) DIR DIS (SHIFT) DIR L/R +/- (GRID)
STEP 3	DESCRIPTION:
STEP 4	METHOD OF ENGAGEMENT:
STEP 5	METHOD OF CONTROL:
	* DO NOT SAY WORDS IN PARENTHESES

OF  
LEADS

[illegible]

01

MORTAR/ARTILLERY CAPABILITIES		
NAME	RANGE	TYPE
60mm/M224	70-3500	HE WP ILLUM
81mm/M29A1	70-4790	HE WP ILLUM
81mm/M252	73-5600	HE WP ILLUM RED P
107mm/M30	770-6840	HE WP ILLUM
120mm/M120	200-7200	HE SMOKE ILLUM
NAME	PLANNING RANGE	ROF - MAX/SUST
105MM/M102	11,500	10 RPM/3 RPM
105MM/M119	14,000	6 RPM/3 RPM
155MM/M198	18,100	4 RPM/1 RPM
155MM/M109	18,100	4 RPM/1RPM

10

10-6

10

ATTACK HELICOPTER CAPABILITIES				
NAME		WEAPON	#	RANGE m
AH-1(G)	COBRA	2.75" FFAR	4	9300
		7.62 minigun	1	1100
		40mm GL	1	2000
AH-1(S)	COBRA	2.75" FFAR	2	9300
		TOW	8	3750
		20mm cannon	1	1500
AH-64	APACHE	2.75" FFAR	1-4	9300
		HELLFIRE	1-16	6000
		30mm chaingun	1	2500

10

10-7

10

ARTILLERY COUNTERFIRE SHELREP - MORTREP - BOMBREP	
A	Call sign
B	Coordinates of observer
C	AZ to flash or sound
D	Time shelling started
E	Time shelling ended
F	Coordinates of shelled areas
G	Number of guns
H	Nature of fire
I	Number, type & caliber of rounds
J	Flash-to-Bang-Time
K	Damage

10

10-8

10



SUPPLIES AND LOGISTICAL SERVICES		
ITEM	PRINCIPLE	✓
1	Chain of command plans for supply status & equipment for fighting; 1SG directs Co log services; PSG coordinates/supervises platoon maintenance with 1SG	
2	Plt logistics includes long & short term supply/transportation/maintenance	
3	PSG coordinates/supervises by getting requests for supplies/equipment from SLs and PLs; reviewing & consolidating, giving list to 1SG or supply sgt	
4	PSG must maintain status of supplies & equipment in plt, monitors requests, reports to PL	

11

11-1

11

PRECOMBAT CHECKS		
ITEM	ACTION	✓
1	Complete prepare to fire weapons checks	
2	Complete preops PMCS; resolve problems	
3	Load vehicles/rucks per load plans	
4	Clean/function check individual & crew served weapons	
5	Top off vehicles	
6	Stow basic load of Classes I & V	
7	Fill canteens, water & oil cans as needed	
8	Index battlesights	
9	Check radio frequency and operation if authorized.	

11

11-2











11

PRECOMBAT CHECKS		
ITEM	ACTION	✓
10	Check speech security equipment and operation if authorized	
11	Check personnel; brief mission	
12	Rehearse	
Notes:		

11

11-3

11

CLASSES OF SUPPLY		
CLASS	DESCRIPTION	SYMBOL
I	Rations	
II	Expendables	
III	POL	
IV	Barrier material	
V	Ammunition	
VI	Sundry	
VII	Major end items	
VIII	Medical	
IX	Repair parts	
X	Materiel to support nonmilitary programs	

11

11-4

11

## **ELECTRO COUNTER-COUNTER MEASURES**

**1 To determine if you are being jammed, disconnect antenna. If noise stops, then starts again when antenna is reconnected, suspect jamming. If noise does not stop, check radio malfunction.**

**2 If you are being jammed:**

- Continue to transmit on highest power setting**
- Relocate to mask jamming signal with terrain**
- Use directional antenna**
- Turn squelch off**
- NEVER acknowledge jamming**
- Move after transmission**

**12**

**12-1**

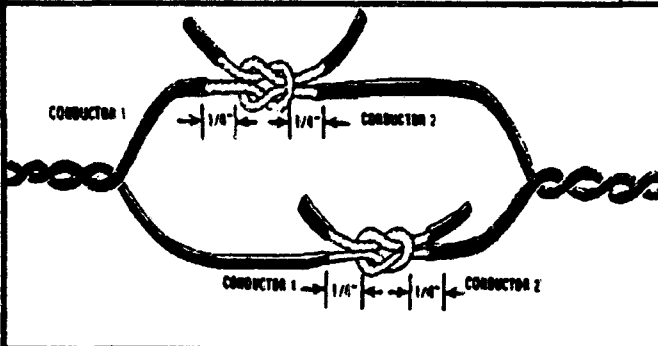
**12**

RADIO TROUBLESHOOTING		
STEP	ACTION	✓
1	Check frequency setting	
2	Check battery: charge-new	
3	Check antenna. upright-clear	
4	Check ALL connections from battery through to antenna: clean-dry-tighten	
5	Check ALL power and position switches	
6	Replace CVC or handset	
7	Check distance/position for terrain mask; move if needed	
8	Check antenna top section: repair if broken-replace if lost	

12

12-2

12

SPlicing FIELD WIRE		
ITEM	ACTION	✓
1	Prepare conductors for splicing:	
	Untwist both ends of wire, remove insulation	
	Cut 6" back from one side of each pair so lengths are uneven	
2	Splice: Tie long conductor of 1 pair to short conductor of other in square knot. Repeat for second pair	
		

12

12-3

12

SPlicing FIELD WIRE		
ITEM	ACTION	✓
3	Secure splices:	
	Separate steel strands from copper, cutting steel even with insulation	
	Cross left hand end of copper strands over top of knot; wrap over bare portion of right hand conductor	
	Continue for two wraps; cut off excess copper	
	Repeat for right hand end	
4	Tape splices:	
	Start at center of splice & wrap tape to cover 1 1/2" of insulation at one end	
	Work tape back over center of knot to cover other side	
	Retape back to center	

12

12-4

12



INSTALLING COMMO LINES		
STEP	ACTION	✓
1	Test field wire on reel: attach telephone sets to ends; if commo check clear, install wire.	
2	Installing field wire: tie to fixed object to start & end (allow slack); tie several places at ground level	
3	Attach wire tags at road crossings, telephones & test stations, both sides of buried or aerial crossings, locations with several lines.	
4	Test wire line after buried or aerial crossings, before & after splicing new reel, before connecting line to switchboard.	

12

12-5

12

<b>CROSSING OBJECTS WITH COMMO LINES</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Culvert: Attach wire tag on each side of road, pass wire thru culvert, add protective tape at ends of culvert.</b>	
<b>2</b>	<b>Aerial crossings: Clear roads by at least 7m, using trees or poles to raise wire. Use lance poles if needed.</b>	
<b>3</b>	<b>Buried crossings: Dig 6-12" deep trench extending beyond each side of road, lay wire loosely, tag, backfill.</b>	
<b>4</b>	<b>Railroad crossing: Cut enough wire to reach across tracks, pull under tracks &amp; secure with stakes along crossties. Splice to wire reel; bury exposed wire.</b>	

**12**

**12-6**

**12**

### **MESSENGER BRIEFING**

- 1. Name/location of person to receive message.**
- 2. Route to follow.**
- 3. Danger points to avoid.**
- 4. Speed required.**
- 5. Is answer required?**
- 6. Action if message cannot be delivered.**
- 7. Special instructions.**
- 8. Content (if required).**
- 9. Report destination at OP/lines.**
- 10. Challenge/Password.**

**12**

**12-7**

**12**

<b>INSTALL/REMOVE HASTY PROTECTIVE MINEFIELD</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Report intention/get authorization to lay minefield</b>	
<b>2</b>	<b>Recon for best sites, under unit observation/fire, integrating with other defense plans</b>	
<b>3</b>	<b>Report initiation of field; place in irregular pattern on avenues of approach</b>	
<b>4</b>	<b>Record Field on DA 1355-1-R</b>	
<b>5</b>	<b>Arm mines - from enemy side to friendly side</b>	
<b>6</b>	<b>Report completion of field; warn adjacent units</b>	
<b>7</b>	<b>Retain DA 1355-1-R as long as unit/field stay in place; if field abandoned forward to Cdr</b>	

**13**

**13-1**

**13**

INSTALL/REMOVE HASTY PROTECTIVE MINEFIELD	
STEP	ACTION
8	Removal: if DA 1355-1-R not available, treat as enemy field and use breaching techniques
9	Remove mines in order using azimuths and distances from DA 1355-1-R
Notes:	

13

13-2

13



# DA FORM 1355-1-R

## HASTY PROTECTIVE MINERFIELD RECORD

(PM 20 - 301)

**AZIMUTH BLOCK**

Enemy	Mag North
-------	-----------

SCALE: 2000 = 1000

**TABULAR BLOCK**

Row	Type	Approximate	Notes

**IDENTIFICATION BLOCK**

Unit	
Ref No	
Remarks	
Map to Show in	
Name of GIST	
Signature	
Initials of GIST	
Address of GIST	

13

13-4

13

<b>BREACHING AND CLEARING MINEFIELDS</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Suppress enemy covering obstacles</b>	
<b>2</b>	<b>Obscure area with smoke</b>	
<b>3</b>	<b>Secure near side</b>	
<b>4</b>	<b>Reduce obstacle-blow or probe lane through</b>	
<b>5</b>	<b>Secure the far side</b>	
<b>6</b>	<b>Blow marked mines in place (time permitting)</b>	
<b>7</b>	<b>Mark cleared lane</b>	
<b>8</b>	<b>Move unit through obstacle</b>	

**13**

**13-5**

**13**



<b>NONELECTRIC FIRING SYSTEM</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Determine length of fuse needed</b> <b>Cut &amp; discard 6" length; cut off 3' length to determine burn rate</b> <b>Light fuse end and list time it takes to burn</b> <b>Compute burn rate per foot (time/burn rate)</b>	
<b>2</b>	<b>Determine amount of explosive needed</b>	
<b>3</b>	<b>Cut fuse to proper length &amp; pass end thru priming adapter</b>	
<b>4</b>	<b>Attach M60 fuse igniter:</b> <b>unscrew fuse holder cap, press shipping plug into igniter, rotate &amp; remove plug, insert fuse in fuse hole, tighten cap</b>	

**13**

**13-6**

**13**

NONELECTRIC FIRING SYSTEM		
STEP	ACTION	✓
5	Attach blasting cap to fuse Inspect open end, remove debris by tapping or shaking gently Hold fuse vertically with square end up Slip cap down over fuse so cap & fuse are in contact Turn cap out & away from body & crimp cap at point 1/8-1/4" from open end	
6	Pull pin to detonate charge	
Notes:		

13

13-7

13

# **NONELECTRIC/ELECTRIC PRIMING OF DEMO BLOCK**

**Note:** prime by wrapping demolition blocks with detonating cord, by inserting knot of detonating cord into plastic explosive, by lacing cord thru dynamite, 40-pound cratering charges or shaped charges

STEP	ACTION	✓
1	<p>Prime with threaded cap well &amp; priming adapter:</p> <p><u>Non-electric</u> inspect cap well, insert cap with fuse into cap well, screw in adapter</p> <p><u>Electric</u> after inspection, fasten free ends of cap lead wire to firing wire &amp; pass thru adapter slot, pull cap into place, then finish as above</p>	

13

13-8

13

NONELECTRIC/ELECTRIC PRIMING OF DEMO BLOCK		
STEP	ACTION	✓
2	<p>Prime with threaded cap well without priming adapter: <u>Non-electric</u> inspect cap well, wrap &amp; tie string around block, leaving excess, insert blasting cap with fuse into cap well - use loose string to keep cap from separating from block.</p> <p><u>Electric</u> after inspection, fasten free ends of cap wire to firing wire, pass lead wires thru adapter slot &amp; insert electric cap into cap well, tie lead wires around block, allowing slack.</p>	
3	<p>Prime without threaded cap well or priming adapter: <u>Non-electric &amp; electric</u> make hole with M2 crimpers, then follow step 2.</p>	

13

13-9

13

<b>CLEAR NONELECTRIC/ELECTRIC MISFIRES</b>		
<b>Note: If possible, misfire should be cleared by soldier who placed the charge</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>NON-ELECTRIC - Wait 30 minutes after misfire before moving to charge</b>	
<b>2</b>	<b>ELECTRIC - If dual primed with non-electric system, wait 30 minutes. Check firing wire connections, make 2-3 more attempts to fire; disconnect firing wire from blasting machine &amp; shunt wires; check entire system for breaks/shorts</b>	
<b>3</b>	<b>UNTAMPED - Without moving or disturbing misfired charge, detonate 1-pound charge at side TAMPED - Dig within 1 foot of misfired charge; detonate a 2-pound charge on top of misfired charge</b>	

13

13-10

13

<b>ELECTRIC FIRING SYSTEM</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Check firing wire with M51 test set or galvanometer; lay out from charges to firing position</b>	
<b>2</b>	<b>Test electric blasting cap; twist free wire ends together</b>	
<b>3</b>	<b>Move to firing point &amp; test entire circuit</b>	
<b>4</b>	<b>Test blasting machine/depress handle</b>	
<b>5</b>	<b>On order, connect lead wires to 2 blasting machine posts &amp; detonate charge</b>	
<b>Notes:</b>		

**13**

**13-11**

**13**

RULES OF ENGAGEMENT(ROE)	
ITEM	DESCRIPTION
1	Rigidly enforce the Rules of Engagement devised and disseminated by higher
2	Leaders will take steps necessary & appropriate for unit's self-defense
3	Use <u>minimum</u> force necessary to control the situation and accomplish the mission
4	Individuals apply common sense
5	Minimize risk to innocent civilians without endangering the mission
6	Train to specific ROE using vignettes and dilemmas

14

14-1

14

AREA ASSESSMENT CHECKLIST		
ITEM	DESCRIPTION	✓
1	Where are refugees from? Size & area of population	
2	What is food & water status?	
3	What is medical status?	
4	What civilian organizations exist; who are the leaders?	
5	What civil/military organizations exist; who are the leaders?	
6	What organization/leadership do most of the people support?	
7	What UN relief agencies are in operation?	
8	What is the security situation?	

14

14-2

14



AREA ASSESSMENT CHECKLIST		
ITEM	DESCRIPTION	✓
9	What commercial or business activities are there?	
10	Which groups are most in need?	
11	What civil projects would leaders like to see accomplished?	
12	How many families are involved?	
13	What food is available and what does it cost?	
14	What skilled labor and services are available?	
15	What is the size and composition of the transient population?	

14

14-3

14

<b>CHECKPOINT/ROADBLOCK PIR CHECKLIST</b>		
<b>ITEM</b>	<b>TO BE REPORTED</b>	<b>✓</b>
<b>1</b>	<b>Number &amp; type of vehicles stopped; markings, license number, signs</b>	
<b>2</b>	<b>Number of passengers per vehicle; ages, genders</b>	
<b>3</b>	<b>Type and quality of cargo</b>	
<b>4</b>	<b>Point of origin &amp; destination</b>	
<b>5</b>	<b>Stated reason for passenger travel</b>	
<b>6</b>	<b>Any weapons found</b>	
<b>7</b>	<b>Any passenger reports of sightings of weapons, technical equipment or bandits</b>	

**14**

**14-4**

**14**

CHECKPOINT/ROADBLOCK PIR CHECKLIST		
ITEM	TO BE REPORTED	✓
8	Condition of passengers (general health, dress, attitude)	
9	Anything unusual observed/ reported by passengers	
Notes:		

14

14-5

14

**AIRCRAFT TROOP  
COMMANDER BRIEFING**

1. Loading procedures \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Bump plan (for individuals/loads) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Use of safety belts \_\_\_\_\_  
\_\_\_\_\_
4. Preflight safety inspection of troops \_\_\_\_\_  
\_\_\_\_\_
5. In-flight procedures \_\_\_\_\_  
\_\_\_\_\_
6. Downed aircraft procedures \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Offloading procedures \_\_\_\_\_  
\_\_\_\_\_
8. Movement from the LZ \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**15**

**15-1**

**15**

<b>SAFETY BRIEFING CHECKLIST</b>		
<b>ITEM</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Wear ID tags, earplugs, helmets, when in/near aircraft</b>	
<b>2</b>	<b>Never approach rotary wing aircraft from rear or front; always from sides</b>	
<b>3</b>	<b>Approach/depart in a crouch on down slope side to ensure clearance</b>	
<b>4</b>	<b>Keep sleeves rolled down</b>	
<b>5</b>	<b>Carry weapons without bayonet, safety on, bolt closed, chamber empty, muzzle DOWN</b>	
<b>6</b>	<b>Bend or tie down radio antennas</b>	
<b>7</b>	<b>Fasten seatbelts &amp; leave buckled until crew chief signals exit</b>	
<b>8</b>	<b>Maintain written manifest (unit, rank, full name, SSN) separate from aircraft</b>	

**15**

**15-2**

**15**

REVERSE PLANNING SEQUENCE		
ITEM	ACTION	✓
1	Ground tactical plan	
2	Landing plan	
3	Air movement plan	
4	Loading plan	
5	Staging plan	
Notes:		

15

15-3

15

GROUND TACTICAL PLAN CONSIDERATIONS		
ITEM	CONSIDERATION	✓
1	Missions of all force elements and methods of employment	
2	Zones of attack, sectors, or areas of operations with graphic control measures	
3	Task organization to include command relationships	
4	Location and size of reserves	
5	Fire support to include graphic control measures	
6	Combat service support to include resupply, evacuation, and plans to sustain the force	

15

15-4

15

LANDING PLAN CONSIDERATION		
ITEM	CONSIDERATION	✓
1	Supports ground tactical plan	
2	Availability, location & size of LZ	
3	Force is vulnerable during landing	
4	Elements must land with tactical integrity	
5	Inform all troops if landing direction changes	
6	Force must land prepared to fight in any direction	
7	Offer flexibility for options in scheme of maneuver	
8	Plan supporting fires in and around each LZ for next lifts and on objective	
9	Provide for resupply & medical evacuation by air	

15

15-5

15



LANDING ZONE SELECTION CRITERIA		
ITEM	CRITERIA	✓
1	Location (based on METT-T) & capacity (size)	
2	Alternates (one per primary LZ)	
3	Enemy disposition/capabilities	
4	Cover/concealment	
5	Obstacles	
6	Identification from air	
7	Approach/departure routes	
8	Weather/surface/slope	

15

15-6

15

AIR ASSAULT PZ/LZ PLANNING CONSIDERATIONS		
ITEM	CONSIDERATION	✓
1	PZs: Minimum movement; access to support assets; masked from enemy observation; outside the range of enemy artillery	
2	LZs: Locate on, close by, or some distance away from the objective (based on M-TETT); size determines how much combat power can be landed; deny enemy observation, acquisition, and ADA; land on enemy side of obstacles; avoid exposing aircraft.	
3	Reduced visibility may limit or preclude use	

15

15-7

15

EXTRACTION LOADING PLAN REQUIREMENTS		
ITEM	REQUIREMENT	✓
1	PZ locations, primary & alternate	
2	PZ security	
3	PZ control party organization & location	
4	Fire support	
5	Sequency of extraction: main body, PZ control party, security force	
6	Movement to PZ: route & order	
7	Loading priorities	
NOTE: PZ TIME IS CRITICAL FACTOR		

15

15-8

15

<b>LEADER DUTIES IN AIR ASSAULT OPERATIONS</b>	
<b>ITEM</b>	<b>DUTY</b>
<b>1</b>	<b>Senior person in each lift located with air mission cdr for C3</b>
<b>2</b>	<b>Set up PZ, supervise marking/ clearing of obstacles w/PZCO</b>
<b>3</b>	<b>Brief all chalk leaders</b>
<b>4</b>	<b>Supervise conduct of rehearsals</b>
<b>5</b>	<b>Supervise security, movement of personnel &amp; equipment, placement of chalks and slingloads on PZ</b>
<b>6</b>	<b>Devise &amp; disseminate bump plan</b>
<b>7</b>	<b>PZ Control Officer (PZCO)/control party: Ensure PZ is cleared; plan/ initiate fire support &amp; security; establish commo nets; lead aircraft signalman responsible for visual landing guidance for lead aircraft</b>

**15**

**15-9**

**15**

<b>CHALK LEADER DUTIES/ PLATOON AIR ASSAULT</b>		
<b>ITEM</b>	<b>DUTY</b>	<b>✓</b>
<b>1</b>	<b>Brief chalk &amp; attachments on loading plan, tasks &amp; positions inside aircraft</b>	
<b>2</b>	<b>Ensure soldiers maintain assigned areas for local security</b>	
<b>3</b>	<b>Supervise loading of personnel; ensure all in assigned positions &amp; buckled in</b>	
<b>4</b>	<b>Keep current on location with map &amp; crew</b>	
<b>5</b>	<b>Ensure personnel exit quickly, rush to safe distance (10-15m), assume prone position &amp; prepare to return enemy fire. Ensure lights/panels emplaced</b>	

**15**

**15-10**

**15**

SET UP A HELICOPTER LANDING SITE		
STEP	ACTION	✓
1	Select & secure landing site; size depends on number & type of helicopters	
2	Ground slope of site must be no more than 15 degrees. If less than 7 degrees, land upslope; if 7-15 degrees, land sideslope	
3	Ensure surface conditions free of rocks and debris; avoid dust, sand & snow	
4	Ensure ground firm enough to keep helicopter from bogging down during loading/unloading	

15

15-11

15

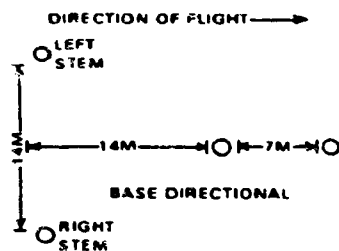
SET UP A HELICOPTER LANDING SITE		
STEP	ACTION	✓
5	Remove obstacles on approach/ deprture ends and clearly mark obstructions that cannot be removed. Ensure sufficient runway to clear obstacles, 10:1 horizontal clearance to vertical obstruct	
6	Mark landing site and touch- down point based on mission, capabilities & situation. Use smoke, signalman, lights; at night mark touchdown point with inverted Y composed of 4 lights.	

15

15-12

15

## NIGHT MARKING OF PZs AND LZs



**NOTES:** The aircraft touch down point will be midpoint on the legs of the Y. If more than 1 will land in the same PZ or LZ, add 1 more light for each. For OH-, UH-, and AH-acft, mark each additional landing point with 1 light at the exact point each acft is to land. For CH-acft, mark each additional point with 2 lights placed 10m apart and aligned in the acft direction of flight.

15

15-13

15



<b>EVALUATE A CASUALTY/FIRST AID</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Airway - clear and maintain</b>	
<b>2</b>	<b>Bleeding - stop</b>	
<b>3</b>	<b>Cover &amp; protect wound</b>	
<b>4</b>	<b>Prevent or treat shock</b>	
<b>5</b>	<b>Check for fractures, burns, concussion</b>	
<b>6</b>	<b>Avoid moving suspected neck or back injuries</b>	
<b>7</b>	<b>Do not give water to abdominal wound except to moisten lips</b>	
<b>8</b>	<b>Seek medical aid</b>	
<b>Notes:</b>		

**16**

**16-1**

**16**

SHOCK - SYMPTOMS/FIRST AID		
STEP	ACTION	✓
1	Look for anxiety, agitation, confusion, pale, clammy, blotchy wet skin, nervousness, thirst, nausea, loss of blood, rapid shallow breathing	
2	Move to covered area. Lay patient on back, elevate feet, loosen clothing. Keep warm or cool depending on weather	
3	Calm patient	
4	Seek medical aid	
Notes:		

16

16-2

16

<b>HEAT EXHAUSTION/HEAT CRAMPS</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Look for moist pale, clammy wet skin, muscle cramps, sweating &amp; thirst, headache &amp; dizziness, faintness, weakness &amp; nausea</b>	
<b>2</b>	<b>Move patient to shade, loosen clothing. If patient conscious, medical personnel give salt water slowly over next 12 hours. Watch for continued symptoms</b>	
<b>3</b>	<b>Seek medical aid if unconscious</b>	
<b>Notes:</b>		

**16**

**16-3**

**16**

<b>HEAT STROKE/SUN STROKE</b>		
<b>NOTE: This is a medical EMERGENCY and potentially fatal</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Look for hot, dry, bright pink skin, high temperature, dizziness, nausea, fast pulse, delirium, no sweating</b>	
<b>2</b>	<b>Lower body temperature IMMEDIATELY by immersion in water, fanning, use ice if available. Remove clothing. Give cool salt water if conscious</b>	
<b>3</b>	<b>Seek medical aid; evacuate as URGENT; continue to cool</b>	
<b>Notes:</b>		

**16**

**16-4**

**16**

FROSTBITE		
STEP	ACTION	✓
1	Look for redness, or grey or waxy skin, frequently numb or itchy, blisters, areas of skin that are unnaturally firm, or tender and swollen	
2	Shelter victim; keep warm with clothing or body heat; insulate from ground. Remove clothing from affected part; wrap loosely in dry sterile dressing. Do not massage area or break blisters or further injury may result.	
3	Seek medical aid; treat as litter casualty	
Notes:		

16

16-5

16

HYPOTHERMIA/COLD WEATHER INJURY		
STEP	ACTION	✓
1	Look for lowered body temp, violent uncontrolled shivering, lack of coordination, memory loss, irrationality, lethargy, slurred speech	
2	Move victim to sheltered area, cover and warm. Force conscious patient to drink quarts of heavily sugared liquids, hot if possible. Replace wet clothing with dry if possible; use sleeping bag to insulate from ground. Keep patient awake and drinking fluids. Do not rub or give alcohol. Start treatment before evacuation; evacuate when stable	
3	Seek medical aid	

16

16-6

16

<b>REQUEST ARMY AIR MEDEVAC</b>		
<b>NOTE: Send secure or encrypt all items.</b>		
<b>LINE</b>	<b>ITEM</b>	<b>✓</b>
1	Location of pick-up site	
2	Pick-up site radio frequency, call sign, and suffix	
3	# of patients by precedence (urgent, priority, routine)	
4	Special equipment required	
5	# of patients by type (litter, ambulatory)	
6	Security of pick-up site	
7	Method of marking pick-up site	
8	Patient nationality and status	
9	NBC considerations	

**16**

**16-7**

**16**

CONTINUOUS OPERATIONS (CONOPS) PLANNING		
STEP	ACTION	✓
1	Set up and ENFORCE an eating and sleeping schedule for ALL personnel	
2	Include OPORD and movement times in warning orders so sleep can be scheduled	
3	Keep orders simple and clear; insist on briefbacks	
4	Do not permit sleeping in or near vehicles; move to safe place	
5	Recognize symptoms of sleep loss: not alert, slow response time, forgetful, mood change, short attention span, irritable	

16

16-8

16



CONTINUOUS OPERATIONS (CONOPS) PLANNING		
STEP	ACTION	✓
6	Recognize symptoms of stress: frustration, anger, tired even after rest, physical problems interfering with eating & sleeping, lack of confidence, forgetfulness	
7	Situation permitting, deal with stress. Give immediate attention, reassurance; rest and food. Pair with buddy	
8	REINFORCE eating/sleeping schedules for all personnel, especially leaders	

16

16-9

16

HEAT PRECAUTIONS		
HEAT CATEGORY	WATER INTAKE	WORK/REST CYCLE(min)
1	1/2 QT/HR	CONTINUOUS
2	1/2 QT/HR	50 work/10 rest
3	1 QT/HR	45 work/15 rest
4	1 1/2 QT/HR	30 work/30 rest
5	2 QT/HR	20 work/40 rest
<p>Note: MOPP gear or body armor will increase effects of heat. Watch for dehydration</p>		

16

16-10

16

RECOVERY PROCEDURE CHECKLIST		
DANGER: Ensure unprotected troops at safe distance		
ITEM	PROCEDURE	✓
1	Recon the area	
2	Estimate the situation	
3	Calculate the ratio (resistance divided by effort)	
4	Obtain resistance	
5	Verify solution	
6	Erect rigging	
7	Recheck rigging	
8	You are ready	
Notes:		

17

17-1

17

RECOVERY FUNDAMENTALS	
ITEM	FUNDAMENTALS
1	<b>Load resistance:</b> <ul style="list-style-type: none"> <li>· Overturned - 1/2 vehicle weight</li> <li>· Nosed (grade) - vehicle weight</li> <li>· Wheel deep - vehicle weight</li> <li>· Fender deep - double vehicle wgt</li> <li>· Turret deep - triple vehicle weight</li> </ul>
2	<b>Mechanical advantage: divide load resistance by available effort (capacity of winch)</b>
3	<b>Rigging: attach tow cables to TOW HOOKS, not lifting eyes or towing pintle</b>
4	<b>Safety:</b> <ul style="list-style-type: none"> <li>· Cross TOWING cables to prevent tangling &amp; keep vehicles aligned</li> <li>· Position hook with throat (open part) UPWARD</li> </ul>

17

17-2

17

RECOVERY FUNDAMENTALS	
ITEM	FUNDAMENTALS
4	<p>Safety (continued):</p> <ul style="list-style-type: none"> <li>· Use heavy leather palmed gloves when handling cables/wire ropes</li> <li>· Place safety keys in hooks/shackles/equipment requiring them</li> <li>· Do NOT apply loads suddenly</li> <li>· No smoking/open flame if fuel or oil has spilled</li> </ul>
Notes:	

17

17-3

17

<b>ENGAGING AIRCRAFT</b>	
<b>NOTE:</b> In the absense of unit SOPs	
<b>STEP</b>	<b>ACTION</b>
<b>1</b>	Engage all attacking aircraft & helicopters positively identified as hostile
<b>2</b>	Engage when friendly ADA units are engaging enemy in your area
<b>3</b>	Engage enemy jet aircraft not attacking your position only after ordered to fire
<b>WEAPONS CONTROL STATUS</b>	
<b>Wpns FREE</b>	Fire at any aircraft not identified as friendly
<b>Wpns TIGHT</b>	Fire only at aircraft <b>POSITIVELY</b> identified as <b>HOSTILE</b>
<b>Wpns HOLD</b>	Fire only in self-defense

**18**

**18-1**

**18**

<b>AIR DEFENSE WARNING</b>	
<b>WARNING</b>	<b>MEANING</b>
<b>RED</b>	<b>Attack is IMMINENT or IN PROGRESS</b>
<b>YELLOW</b>	<b>Attack is PROBABLE</b>
<b>WHITE</b>	<b>Attack is improbable</b>
<b>LOCAL AIR DEFENSE WARNING (LADW)</b>	
<b>WARNING</b>	<b>MEANING</b>
<b>DYNAMITE</b>	<b>ACFT inbound &amp; attacking; response is immediate</b>
<b>LOOKOUT</b>	<b>ACFT in area of interest but not threatening OR inbound but there is time to react</b>
<b>SNOWMAN</b>	<b>No ACFT pose threat at this time</b>

**18**

**18-2**

**18**

ENGAGEMENT/LEAD DISTANCES		
<p>High performance aircraft; Two football field "lead"; fire on automatic</p> <p>Low performance/rotary wing: one half football field "lead"; fire on automatic</p> <p>Aircraft coming directly at you: fire full automatic at nose</p>		
Notes:		

18

18-3

18



PASSIVE AIR DEFENSE MEASURES		
ITEM	ACTION	✓
1	Use covered & concealed routes and stationary positions	
2	Cover glass & camouflage vehicles; do not skyline or outline	
3	Maintain COMSEC & air guards	
4	Specify visual & audible air warning signals in unit SOP	
5	Enforce noise, light, litter discipline	
Notes:		

18

18-4

18

<b>BUILT-UP AREA FIGHTING PRINCIPLES</b>		
<b>ITEM</b>	<b>PRINCIPLE</b>	<b>✓</b>
<b>1</b>	<b>Attack rapidly, in depth, to dominate killing areas</b>	
<b>2</b>	<b>Clear each house thoroughly/consolidate</b>	
<b>3</b>	<b>Keep equipment light</b>	
<b>4</b>	<b>Plan for casualty/EPW evac</b>	
<b>5</b>	<b>Clear streets, houses, buildings and basements</b>	
<b>6</b>	<b>Mark cleared structures</b>	
<b>Notes:</b>		

**19**

**19-1**

**19**

<b>ATTACK AND CLEAR A BUILDING</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Organize unit into assault force and support force</b>	
<b>2</b>	<b>Designate special wpns/teams</b>	
<b>3</b>	<b>Support force ISOLATES bldg from overwatch position</b>	
<b>4</b>	<b>Support force suppresses enemy in bldg and near by to cover assault force's move</b>	
<b>5</b>	<b>Support force resupply ammo, replace personnel, evacuate wounded/EPWs</b>	
<b>6</b>	<b>Aslt force ENTERS bldg at highest level possible to gain foothold</b>	
<b>7</b>	<b>Aslt force CLEARS building room-by-room</b>	
<b>8</b>	<b>Aslt force marks each room/each building when cleared</b>	

**19**

**19-2**

**19**

<b>ORGANIZE BUILDING DEFENSE</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>1</b>	<b>Select building(s) to defend by considering</b>	
	<b>Protection/Dispersion</b>	
	<b>Concealment</b>	
	<b>Fields of Fire</b>	
	<b>Observation</b>	
	<b>Covered routes</b>	
	<b>Building strength/Fire hazard</b>	
	<b>Time available</b>	
<b>2</b>	<b>Position teams/vehicles</b>	
<b>3</b>	<b>Plan for/register indirect fires</b>	
<b>4</b>	<b>Select/prepare primary/alternate/supplementary psns for key dismounted weapons</b>	

**19**

**19-3**

**19**

<b>ORGANIZE BUILDING DEFENSE</b>		
<b>STEP</b>	<b>ACTION</b>	<b>✓</b>
<b>5</b>	<b>Prepare rooms in building(s)</b>	
	<b>Stockpile supplies</b>	
	<b>Establish CP/OPs</b>	
	<b>Set up wire commo lines</b>	
	<b>Cover floors with sand/dirt</b>	
	<b>Reinforce/camouflage psns</b>	
<b>6</b>	<b>Prepare outside of building(s)</b>	
	<b>Emplace mines/obstacles to cover deadspace/approaches/passages</b>	
	<b>Cover all mines/obstacles by observation and fire</b>	
<b>7</b>	<b>Inspect preparations</b>	
<b>Notes:</b>		

**19**

**19-4**

**19**

PRINCIPLES OF THE LAW OF WAR		
STEP	PRINCIPLE	✓
1	All US/NATO ammo & weapons are lawful; do not alter.	
2	Do NOT fake surrender, use enemy uniforms, booby trap personnel or use medical symbols to deceive.	
3	Attack only combat targets, using only mission essential firepower, avoiding needless destruction and unnecessary suffering.	
4	Non-combat targets include the following: those surrendering, captives, the sick, the wounded; medical personnel, medical vehicles and medical	

20

20-1

20

PRINCIPLES OF THE LAW OF WAR		
STEP	PRINCIPLE	✓
	buildings; undefended civilian buildings and monuments.	
5	Provide for the humane treatment and protection of all captives & non-combatants.	
6	Disposition of property: tag and turn in captured or abandoned military property; safeguard valuable abandoned private property; do not loot.	
7	Adherence to the Law of War supports tactical and strategic mission goals. Identify and report all violations.	

20

20-2

20

<b>RULES OF ENGAGEMENT (ROE) AND THE LAW OF WAR</b>	
<b>1</b>	<b>ROE are internally imposed restrictions upon the use of force.</b>
<b>2</b>	<b>ROE may restrict actions allowable under the Law of War.</b>
<b>3</b>	<b>ROEs are General Orders providing specific guidance for specific operations; they are NOT interchangeable.</b>
<b>4</b>	<b>Violations of a ROE are not necessarily violations of the Law of War, but are punishable under the UCMJ as violations of a General Order.</b>
<b>5</b>	<b>Central to every ROE: The right to self-defense is <u>never</u> denied; use the <u>minimum</u> force required to complete your mission.</b>

**20**

**20-3**

**20**



HANDLING ENEMY PRISONERS OF WAR		
ITEM	ACTION	✓
1	SEARCH- remove, tag & mark weapons, documents; return personal items, helmet, NBC gear	
2	SEGREGATE - by rank, sex, military, civilian	
3	SILENCE - no talking	
4	SPEED - from battle area	
5	SAFEGUARD - to prevent harm or escape	
Notes:		

20

20-4

20



[illegible]

21



SPOT REPORT/SALUTE	
LINE	ITEM
1	Size
2	Activity
3	Location
4	Unit/Uniform
5	Time observed
6	Equipment

21

21-4

21

**FIND UNKNOWN RANGE USING  
MIL RELATION "WORM" FORMULA**

**NOTE:** For MIL Relation Formula, the width or length of the target (W) must be known.

STEP	ACTION
1	Measure the target width using binoculars' mil scale ( $m$ )
2	Divide target width in meters (W) by mil width ( $m$ ) to find range (R)
3	Round R to nearest tenth; multiply by 1000 for range to target
4	Remember $R = \frac{W}{m}$

**21**

**21-5**

**21**

WEAPON CAPABILITIES - EFFECTIVE RANGE (METERS)						
SYSTEM	7.62 mm	.50 cal	25 mm	105/120 mm	152 mm	TOW/ SHIL
M901 ITV	900					3750
M113 APC		1600		or		3750
M2/ 3 BFV	900		<u>1750 AP</u> 3000 HE			3750
LAV 25	900		3000			
M1/M1A1	900	1600		2800/3990		
M60A1/A3	900	1600		1700		
M551 SHER	900	1600			2000	3000

21

21-6

21

TARGET ACQUISITION		
ITEM	SIGNATURE	✓
1	Soldiers - trash, damaged vegetation, noise	
2	Tracked vehicles - fuel, smoke, noise	
3	Antitank weapons - noise, wires, vapor trails, flash	
4	Artillery - noise, smoke, flash	
5	Aircraft - noise, glare, vapor trails, dust	
6	Mines and obstacles - strange material, tripwires, loose/ disturbed dirt, tactical barbed wire	

21

21-7

21



CONVERSION TABLE: US TO METRIC TO US				
EXAMPLE: Multiply inches by 2.54 to get centimeters; multiply centimeters by 0.394 to get inches.				
MULT	X	=	X	=
IN	2.54	CM	0.394	IN
FT	0.305	M	3.280	FT
YDS	0.914	M	1.094	YDS
MI	1.609	KM	0.621	MI
QTS	0.946	LTR	1.057	QTS
GAL	3.785	LTR	0.264	GAL
OZ	28.349	GMS	0.035	OZ
LBS	0.454	KG	2.205	LBS
MPG	0.245	KM/LTR	2.354	MPG
MPH	1.609	KM/HR	0.621	MPH
Fahrenheit to Celsius = $(F - 32) \times 5/9$				
Celsius to Fahrenheit = $(C \times 9/5) + 32$				

21

21-8

21

CONVERTING AZIMUTHS - GRID TO MAGNETIC/MAGNETIC TO GRID	
STEP	ACTION
1	GRID TO MAGNETIC: (map to ground) To compute easterly azimuth, subtract G-M angle from grid azimuth; to compute westerly azimuth, add G-M angle
2	MAGNETIC TO GRID: (ground to map) To compute easterly azimuth, add G-M angle to compass reading; to compute westerly azimuth, subtract G-M angle
Notes: MAG to GRID - Right Add, Left Subtract	

21

21-9

21

<b>REDUCE RISK OF FRATRICIDE</b>	
<b>ITEM</b>	<b>PRIMARY FACTORS</b>
<b>1</b>	<b>Mission and C<sup>2</sup></b> <b>High vehicle or wpns density</b> <b>Cdr's intent is unclear or complex</b> <b>Poor flank coordination</b> <b>Crosstalk lacking</b> <b>No habitual relationships</b>
<b>2</b>	<b>Enemy</b> <b>Weak intelligence or recon</b> <b>Intermingled with friendly</b>
<b>3</b>	<b>Terrain</b> <b>Obscuration or poor visibility</b> <b>Extreme engagement ranges</b> <b>Navigation difficulty</b> <b>Absence of recognizable features</b>

**21**

**21-10**

**21**

<b>REDUCE RISK OF FRATRICIDE</b>	
<b>ITEM</b>	<b>PRIMARY FACTORS</b>
<b>4</b>	<b>Troops &amp; Equipment</b> <b>High weapon lethality</b> <b>Unseasoned leaders or troops</b> <b>Poor fire control SOPs</b> <b>Incomplete ROE</b> <b>Anxiety or confusion</b> <b>Failure to adhere to SOPs</b>
<b>5</b>	<b>Time</b> <b>Soldier &amp; leader fatigue</b> <b>Inadequate rehearsals</b> <b>Short planning time</b>

**21**

**21-11**

**21**

<b>RISK ASSESSMENT PROCESS</b>	
<b>1</b>	<b>Identify the hazards - potential sources of danger</b>
<b>2</b>	<b>Assess the hazards &amp; cumulative effect on mission or objective Probability of causing problems + severity of consequences -&gt; risk assessment = impact of combined hazards; quantify risk as extreme, high, medium, or low</b>
<b>3</b>	<b>Make risk decisions at level corresponding to degree of risk</b>
<b>4</b>	<b>Implement controls SOPs, safety briefings, rehearsals</b>
<b>5</b>	<b>Supervise Monitor, follow up, reevaluate plan, make adjustments, incorporate lessons learned</b>

**21**

**21-12**

**21**

RISK ASSESSMENT WORKSHEET (SAMPLE - adapt for your unit)			
<u>OPERATIONS</u>			
NATURE OF OPERATIONS			
LENGTH	Routine	Complex	Dangerous
72 hrs	3	4	6
48 hrs	2	3	5
24 hrs	2	2	4

<u>SUPERVISION</u>			
NATURE OF MISSION			
COMMAND/ CONTROL	Day	Night	Special Hazard
AD HOC "Hey You"	2	3	4
Attached	1	2	3
Organic	0	1	2

21

21-13

21

<b>RISK ASSESSMENT WORKSHEET</b>			
<b><u>SOLDIER SELECTION</u></b>			
<b>TASK</b>	<b>EXPERIENCE</b>		
	<b>Qual and Exper</b>	<b>Familiar but not Exper</b>	<b>Unfamiliar or OJT or Untrained</b>
<b>Complex</b>	<b>2</b>	<b>4</b>	<b>5</b>
<b>Routine</b>	<b>1</b>	<b>3</b>	<b>4</b>
<b>Simple</b>	<b>0</b>	<b>2</b>	<b>3</b>
<b><u>WEATHER &amp; ENVIRONMENTAL CONDITIONS</u></b>			
<b>TEMP</b>	<b>VISIBILITY/MOISTURE</b>		
	<b>Day Clear/ Dry</b>	<b>Lim Vis Haze/ Drizzle</b>	<b>Night Dust/Fog/Snow Mud/Rain Ice</b>
<b>Very Cold</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Moderate</b>	<b>0</b>	<b>2</b>	<b>3</b>
<b>Very Hot</b>	<b>4</b>	<b>2</b>	<b>3</b>

**21**

**21-14**

**21**

RISK ASSESSMENT WORKSHEET			
EQUIPMENT STATUS			
MAINTENANCE STATUS			
AGE	Highly Maint	Poorly Maint	C-4 Not Ready
Old	2	4	4
Average	1	3	4
New	0	2	4

LEADERS REST & PREP TIME			
TIME FOR MISSION PREP			
REST	Indepth	Adequate	Minimal
<4 hrs	2	3	4
6 hrs	1	2	3
8 hrs	0	1	2

21

21-15

21



RISK ASSESSMENT WORKSHEET			
<u>SOLDIER CONDITION</u> <u>AND TERRAIN</u>			
	Good 8 hrs	Adequate 6 hrs	Minimal <4 hrs
<b>TERRAIN</b>			
<b>Dangerous</b>	2	3	5
<b>Challenging</b>	1	2	4
<b>Normal</b>	0	1	3
<b>RISK ASSESSMENT:</b>			
<b>Low</b> 1.....11	<b>Moderate</b> 12.....23	<b>High</b> 24.....33	
What are your risk reduction actions?			

21

21-16

21

ACRONYMS	
A	
AA	Assembly Area/Avenue of Approach/ Anti Armor
ACE	Ammo, casualties, equipment
ADA	Air Defense Artillery
AP	Armor piercing
APC	Armored Personnel Carrier
AT	Antitank
AZ	Azimuth
B	
BFV	Bradley Fighting Vehicle (M2/M3)
BMNT	Beginning of Morning Nautical Twilight
BN	Battalion
BP	Battle Position
C	
cal	caliber
CAS	Close Air Support
cGy	Centigray

22

22-1

22

ACRONYMS	
C	
COA	Course of Action
coax	coaxial machinegun
COMSEC	Communications Security
CONOPS	Continuous Operations
CP	Command Post
CQC	Close quarter combat
CSS	Combat Service Support
CVC	Combat Vehicle Crewman
D-E-F	
Dir	Director
Dis	Distance
DTG	Date-Time Group
EA	Engagement Area
EENT	End of Evening Nautical Twilight
EMP	Electromagnetic Pulse
EPW	Enemy Prisoner of War
FEBA	Forward edge of battle area
FFAR	Folding fin aerial rocket
FPF	Final protective fires
FPL	Final protective lines
FRAGO	Fragmentary order
FSO	Fire support officer

22

22-2

22

ACRONYMS	
G-H-I	
G-M	Grid-Magnetic
GSR	Ground Surveillance Radar
HE	High Explosive
ID	Identification
ITV	Improved Tow Vehicle
J-K-L	
KIA	Killed in action
LAV	Light Armored Vehicle
LD	Line of Departure
log	Logistics
LZ	Landing Zone
M	
m	meter(s)
mil	mil
M1/M1A1	Abrams Tank
MEDEVAC	Medical Evacuation
MEL	Maximum Engagement Line
METL	Mission essential task list

22

22-3

22

ACRONYMS	
M	
mm	millimeter
MOPP	Mission Oriented Protection Posture
MORTREP	Mortar Report
METT-T	Mission, enemy, troops, terrain & time
N	
NBC	Nuclear, Biological, Chemical
NOD(s)	Night Observation Device(s)
NVG	Night Vision Goggles
O	
OCOKA	Observation/fields of fire, cover & concealment, obstacles, key terrain, avenues of approach
OBJ	Objective
OJT	On the job training
OP	Observation post
OPORD	Operation Order
ORP	Objective Rally Point

22

22-4

22

ACRONYMS	
P	
PB	Patrol Base
PIR	Priority Information requirements
PMCS	Preventive Maintenance Checks and Services
PZ	Pickup Zone
PZCO	Pickup zone control officer
R	
ROE	Rules of engagement
RP	Release Point; Rally Point, Reference Point
R&S	Reconnaissance and Security
S	
SHELREP	Shell Report
SHER	Sheridan
SHIL	Shillelagh missile
SOI	Signal operation instructions
SP	Start Point
STANO	Surveillance, Target Acquisition and Night Observation

22

22-5

22

ACRONYMS	
T	
TOW	Tube-launched, Optically-tracked, Wire-guided
TRP	Target Reference Point
U - Z	
WIA	Wounded in action
WP	White Phosphorus
WRP	Weapons Reference Point

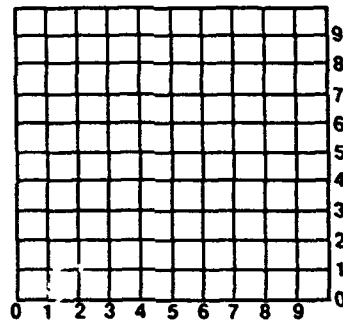
22

22-6

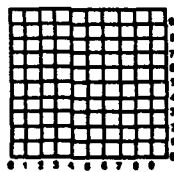
22

# COMBAT LEADERS' GUIDE

1/25,000 OR 1/250,000



1/50,000



READ RIGHT → THEN UP ↑



# CALL FOR FIRE CARD

(STEPS 4 & 5 ARE OPTIONAL)

ID:

STEP 1

WARNING ORDER: AF / FFE / S / IS POLAR / SHIFT (GRID)

LOCATION: (POLAR) DIR DIS

(SHIFT) DIR

L/R +/-

STEP 2

(GRID)

DESCRIPTION:

STEP 3

METHOD OF ENGAGEMENT:

METHOD OF CONTROL:

• DO NOT SAY WORDS IN PARENTHESES

STEP 5 STEP 4